THE SCORE

A MUSIC MAGAZINE

Editor: William Glock

Number 22, February 1958

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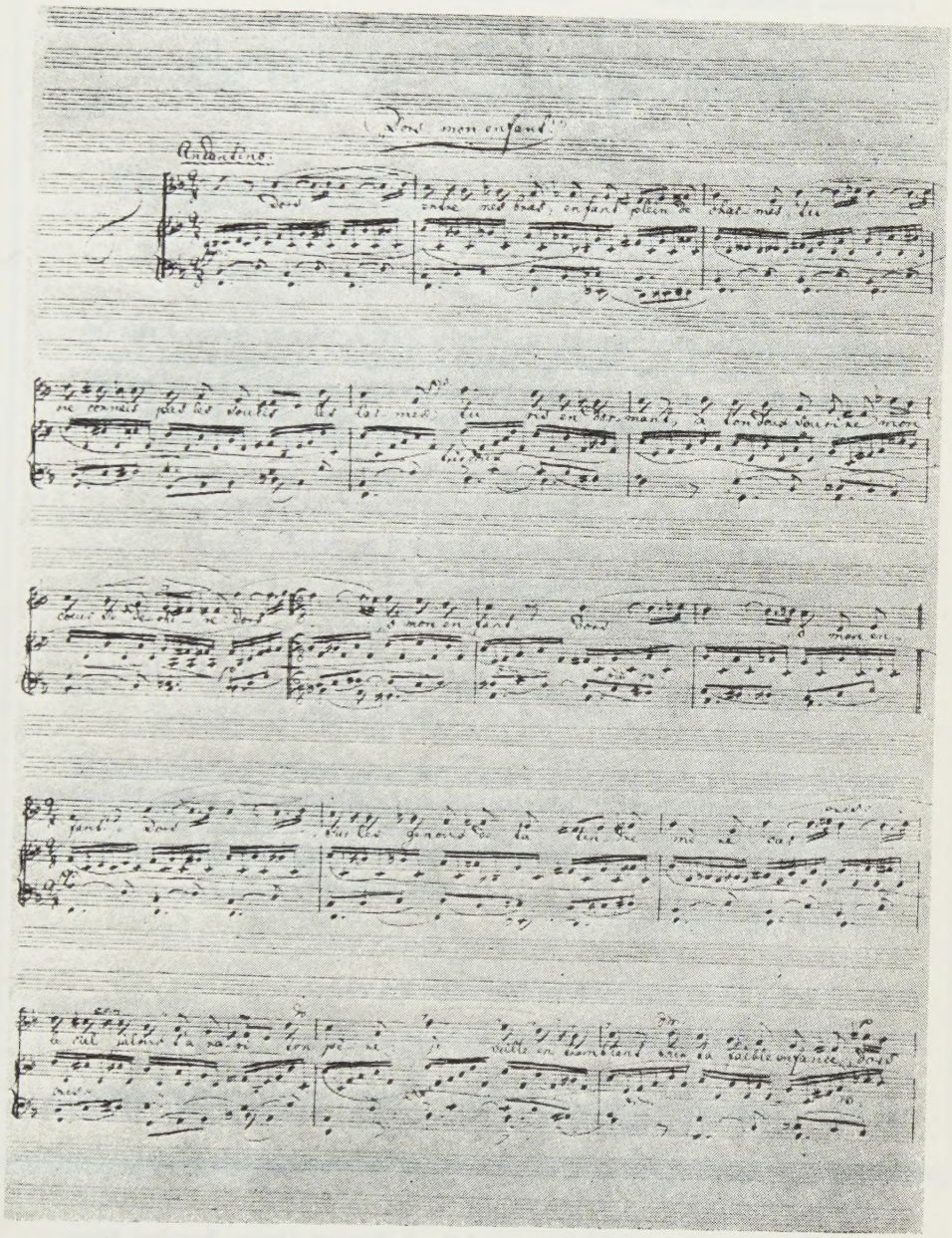

Seven Shillings and Sixpence **February 1958**

Editor : WILLIAM GLOCK

COVER MANUSCRIPT is the first page of Wagner's song, *Dors, mon enfant!*, composed in Paris in 1839.

According to present plans, the next issue will include articles by Robert Craft (on Stravinsky's *Threni*), Norman Del Mar (Third instalment of Confusion and Error), and Bertolt Brecht (an essay written in 1935 on the Application of Music to the Epic Theatre). The issue will also contain several hitherto unpublished letters by Schoenberg and Webern.

With the closing of the I.M.A., the subsidy that made possible the continuance of *The Score* has been withdrawn. A letter has been sent to all subscribers, putting forward a plan that will enable the magazine to carry on for the time being, until it can be re-established on its former basis. Meanwhile the price of single copies has been raised to 7/6.

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Number 22, February 1958

Alun Hoddinott

This outstandingly able young composer, whose Septet was commissioned by the BBC, and broadcast at the end of last year in the Third Programme's Tenth Anniversary celebrations, has been working on two further commissions. One is a Harp Concerto for the well-known soloist Osian Ellis; the other is a Viola Concertino, commissioned by the Welsh Committee of the Arts Council of Great Britain. His best-known work is the Clarinet Concerto, which was first heard at a Cheltenham Festival, and later at a Promenade Concert.

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A TALK ON ARNOLD SCHOENBERG

Josef Rufer

This talk, given at a public session of the Berlin Akademie der Künste, *is printed with kind permission of the author.*

Ladies and Gentlemen,

I have the honour of submitting to you a brief report on the mission that took me, at the request of the West Berlin *Akademie der Künste*, to Los Angeles and Washington this spring. My task was to examine and catalogue the entire artistic estate of Arnold Schoenberg, and to account for my findings in a publication. To anticipate briefly: I was able to establish that, with the exception of two of the *Six pieces for male chorus*, Op. 35, the whereabouts of which could not be ascertained, all original manuscripts of this master's music, as well as those of his theoretical and literary works, and his paintings—they were done largely in the years around 1910—are extant. By far the largest part is in the possession of Schoenberg's widow, about twelve manuscripts are in the Library of Congress in Washington, and some are in the hands of various publishers in New York and Vienna. I have, myself, inspected and catalogued all these, as well as the sole manuscript of the tonal *Suite for String Orchestra* of 1934, which is owned by a private collector in Basle.

In view of the political upheavals of our age, the almost complete preservation of these original manuscripts is an unexpected stroke of luck. We owe it to the fact that Schoenberg left Germany, and shortly after, Europe, early enough to be able to take these manuscripts with him. Moreover, since about 1910 he had kept everything he had committed to writing, in whatever form. In roomy chests and bookshelves, reaching up to the ceiling, in drawers, cabinets and trunks, occupying three walls of his study and an entire adjoining room, I found an abundance of scores, bound by Schoenberg himself, large and small sketchbooks, piles of loose musical sketches, and some hundred longer and shorter essays and lectures which, extending from the most personal thoughts to reflexions of a musicological, sociological, aesthetical and political nature, embrace everything that directly or indirectly, essentially or incidentally, moved this vital spirit. Some of it is completed, some hastily jotted down on loose leaves or small pieces of paper. To this must be added the many marginal notes in music books and periodicals, and the analytical glosses in the volumes of the great Bach-Edition and in the scores of the classics. There is also a treatise on orchestration on novel lines, begun in 1917 and subsequently continued in America; a fundamental thesis on the notion of *The Musical Idea;* a voluminous work, *The Basic Principles of Composition Teaching*, and the first volume of a book on counterpoint planned in three volumes. Furthermore, essays of every kind,

aphoristic and anecdotal matter—not to mention the carbon copies of thousands of letters written by Schoenberg during the last fifty years of his life which, together with the letters of his correspondents, reflect the spiritual and musical development of the twentieth century.

Here the question arose whether, among this material, there might be any hitherto unknown compositions. I found a number of works, some completed, others not, from various creative periods. From his early and earliest youth come numerous songs and chamber works, most important a four-movement string quartet in D major written in 1897, which must be considered the apex of the 23-year-old Schoenberg's first phase of development. Then there are two songs, one on a poem from the *Westöstlicher Divan*, the other on Rilke's poem *Am Strande*, with the note: 'This song was written before the George-Lieder, at the same time as the two songs Op. 14. Could have been published, really. I have kept it back because of the text.'

Not only of musical but also of historical significance are the *Three short pieces for chamber orchestra*—they have no titles or opus number. Composed one year before the *Six short piano pieces*, Op. 19, they form an astonishing anticipation of Webern's aphoristic works of that period. Among sixteen sheets of manuscript paper containing sketches and drafts for an oratorio planned on a grand scale but not executed in the years before the first World War, I discovered a document important for the history of twelve-tone music: a draft, comprising 100 bars, of a scherzo movement, dated the 27th May, 1914. The main subject of the *Presto*, which is entitled 'Second Movement', consists of a pure twelve-tone phrase, the very first musical idea conceived consciously as a twelve-tone row. Part of this work was to be incorporated in the oratorio *Die Jakobsleiter*, begun in 1917. The latter, too, was destined to remain a fragment, although Schoenberg hoped, until his last years, to complete it—a gigantic fragment, to be sure, of 700-odd bars, the length of a symphony. This is the most important of the pieces that are as yet unpublished. Finally, I found piles of drafts and sketches for orchestral and chamber works from the American period which not only testify to Schoenberg's ever-flowing invention but are also a veritable treasure-house of the craft of composition. Thirty-five canons from various creative periods, of which some only, written for special occasions, were published at the time, are the tokens of a mastery comparable only to that of the old Flemish composers.

On looking through this material, I made the surprising discovery that a great number of manuscripts bear the mark 'Berlin' next to the date of commencement or completion. Schoenberg was domiciled in our town three times: first, at the turn of the century for a period of two years, which saw the completion of the *Gurrelieder* and the composition of the symphonic poem *Pelleas und Melisande*. At this time, too, he collaborated with Wolzogen in the latter's *Überbrettl*, contributing nine, still extant chansons to words of Bierbaum, Wedekind and others—occasional pieces, as are also the arrangements for *Salon*-orchestra of two Johann Strauss Waltzes, *Rosen aus dem Süden* and *Lagunenwalzer*, or a march, *Die eiserne Brigade*, which Schoenberg wrote while serving in the army during the first World War for a 'social evening' at the military training camp of Bruck an der Leitha. The title page bears the comment: 'Original manuscript, presented to Dr. Kusmitsch, 1916, first lieutenant at Bruck a.L., law official at Budapest (who did not know how to value this).'

Schoenberg's second sojourn in Berlin comprised the four years from 1911 to the beginning of 1915. During this stay, he completed the drama with music *Die glückliche Hand*, wrote the music to Maeterlinck's *Herzgewächse*, and—out in Zehlendorf, in just under three months—his *Pierrot Lunaire*, which was first performed under his direction in the autumn of 1912 in Berlin. In the spring of the same year, incidentally, Schoenberg kept a diary for some little while which shows that he was at this time in close personal contact with Nolde, Franz Marc and Kandinsky. The latter had included several paintings of Schoenberg in his exhibition of *Der blaue Reiter*.

The third and last Berlin period began in the autumn of 1925 when Schoenberg was invited to take over, as successor to Busoni, a 'Meisterklasse' in composition at the Prussian Academy of Arts. The eight years ushered in by this event were a blessed era for Schoenberg. Many masterpieces came into being, such as the *Septet*, Op. 29, the *Third String Quartet*, the *Variations for Orchestra*, which were first performed in Berlin by Furtwängler with the Philharmonic Orchestra, the opera *Von Heute auf Morgen* and the *Begleitmusik zu einer Lichtspielszene*. And a sheet of manuscript paper marked 'Berlin, 7th May, 1930', bears the very first sketch for the opera *Moses und Aron*.

Schoenberg's estate contains extremely copious and significant material, in the form of musical sketches and written notes, relating to that opera. Many problems that arose at and after the first performances at Zürich and Hamburg find their solution here. Thus, a piece of manuscript paper with the first few bars of the third act seems to me incontrovertible proof that Schoenberg really intended composing this; a fact further borne out by the remark: 'don't forget: here, already, a movement in five to six sections must be planned'. Besides, I found in a sketchbook of pocket-size some further bars for the third act, with the note 'Aaron is dragged in'. I also discovered voluminous, detailed and most precise directions for conductor, singers, instrumentalists, designers, painters and lighting technicians, for the speaker of Moses, for the dancers, and above all, for the producer. Though these came, unfortunately, too late for the stage *première* at Zürich, they will be of the greatest value for future performances.

I would like to close my report with an extract from a shattering document which was written under the title *National Music* in February, 1931, that is, at the time of *Moses und Aron*. Shattering, since, from those days on, Schoenberg was gradually being denied the right of calling himself a German musician. He says there:

'It is strange that nobody has yet observed that my music, grown on German ground and untouched by foreign influences, as it is, constitutes an art which has sprung entirely from the traditions of German music, and which effectively opposes the striving for hegemony on the part of Romance and Slav schools.

The general failure to perceive this is due not so much to the difficulty of my scores as to the indolence and arrogance of the observers. For the facts are self-evident.

But let me, for once, recount them myself.

My masters were in the first place Bach and Mozart, in the second Beethoven, Brahms and Wagner.

From *Bach*, I learnt:

1. Contrapuntal thinking, i.e. the art of inventing patterns that can become their own accompaniment.
2. The art of producing everything from one germ, and of leading from one figuration to another.
3. Independence of the beat.

From *Mozart:*

1. Inequality of phrase-length.
2. Integration of heterogeneous elements by thematic unity.
3. Deviation from periodic metre in the theme and its components.
4. The art of forming subsidiary ideas.
5. The art of introduction and transition.

From *Beethoven:*

1. The art of development in themes and movements.
2. The art of the variation and variant.
3. Manifoldness in the construction of great movements.
4. The art of being unashamedly explicit, or again heartlessly brief, as the context may demand.
5. Rhythm: the displacement of figures on to different beats.

From *Wagner:*

1. Adaptability of themes as regards their emotive content, and their invention with this in view.
2. The kinship of notes and chords.
3. The device of treating whole themes and motifs as ornaments,[1] whereby they can be placed dissonantly against harmonies.

From *Brahms:*

1. Much of what I had unconsciously assimilated from Mozart; particularly asymmetrical metres, expansion and contraction of phrases.
2. Plasticity of shape: not to be miserly when spaciousness would help intelligibility; to develop fully every thought.
3. Relevance of texture.
4. Economy, and yet wealth.

I have learnt much from Schubert, too, and from Mahler, Strauss and Reger. I have shut myself off from no-one, and can therefore say of myself:

My originality springs from the fact that I have promptly imitated whatever good I found. Even when I did not find it first in *others.*

And I can declare: often enough have I found it first in *myself.* For I have not stood still at what I have learnt from others: I have striven for it in order to call it my own;[2] I have digested and augmented it, and it has led me to new discoveries.

I am convinced that the time will come when people will realize how intimately connected these discoveries are with the best that was handed down to us. I claim the distinction of having written truly new music which, based on tradition, as it is, is destined to become tradition.'

(Translated by Paul Hamburger.)

Translator's notes:

[1] 'manierenartig'.

[2] Schoenberg paraphrases here a well-known quotation from Goethe: 'Was du ererbt von deinen Vätern, erwirb es, um es zu besitzen'.

SERIALISM RECONSIDERED

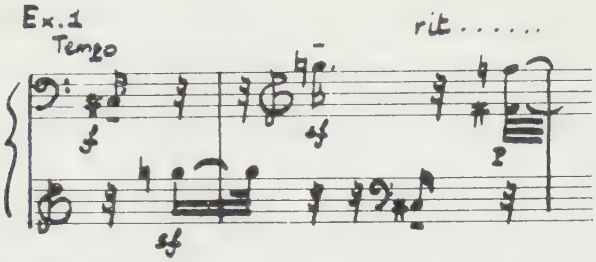
Peter Stadlen

I think it was early in 1937 in Vienna that I accompanied Webern to a concert where his *Symphony* was being performed. Webern felt rather gloomy, because the conductor (who is still world-famous today) had not spent nearly enough time discussing the work with him—and there had been occasional waves of mirth during rehearsals. The moment the performance was over, Webern turned to me and said with some bitterness: 'A high note, a low note, a note in the middle—like the music of a madman!' I felt that few among the audience would have wanted to quarrel with that summing up—yet I wondered whether authentic interpretation was really all that was required to bridge the gap between Webern's image of his *Symphony* and the conglomeration of correctly placed, but seemingly unconnected little shrieks and moans the audience thought they heard that evening.

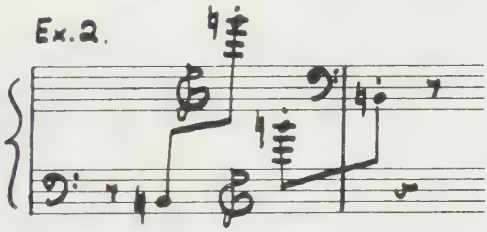
I had some idea what Webern thought was missing, because just about that time he had entrusted me with the first performance of his *Piano Variations*. For weeks on end he had spent countless hours trying to convey to me every nuance of performance down to the finest detail. As he sang and shouted, waved his arms and stamped his feet in an attempt to bring out what he called the meaning of the music I was amazed to see him treat those few scrappy notes as if they were cascades of sound. He kept on referring to the melody which, he said, must be as telling as a spoken sentence. This melody would sometimes reside in the top notes of the right hand and then for some bars be divided between both left and right. It was shaped by an enormous amount of constant *rubato* and by a most unpredictable distribution of accents. But there were also definite changes of tempo every few bars to mark the beginning of 'a new sentence'. Again, Webern's extreme demands for differentiation of sound, especially in the field of *pianissimo*, resulted at the time in a friendly rumour that he had introduced the '*pensato*'. This meant that a note had to be so indescribably tender and soft that it was only allowed to be thought of.

He would occasionally try to indicate the general mood of a piece by comparing the *quasi improvisando* of the first movement to an intermezzo by Brahms or the Scherzo character of the second to that of the *Badinerie* of Bach's *B minor Overture*, of which he said he had thought when composing his piece. But the way this had to be carried out was always firmly fixed in Webern's mind and never in the slightest left to the mood of the moment.

He would invest these four notes with special intensity of feeling not only by

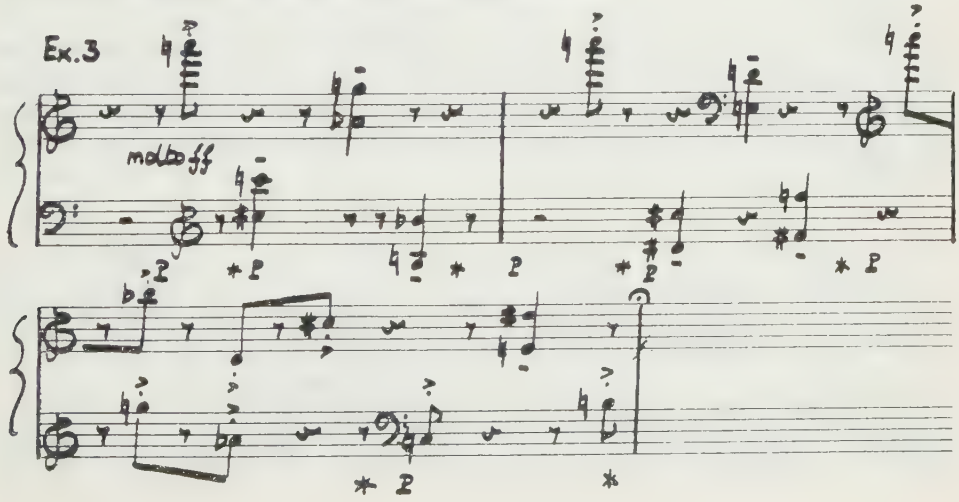


an exaggerated *crescendo-decrescendo*, but also by letting the right hand relieve the left on the repeated note with as small a gap as possible and 'at the last moment, almost too late' . . . Webern said that this would bring out the emotional content of these four notes that look simple and innocent enough on paper. Of a similar group in the Scherzo which is extremely awkward at the required tempo, Webern said that



the inevitable difficulty in bringing it off would invest it with just the right kind of phrasing which would be impossible to imitate by 'cheating' and playing both low notes with the left hand and the high notes with the right.

He attached great importance to a conscious use of the sustaining pedal (although there are no pedal marks) not only as a means of varying the tone colour but also to make up for the angular thinness of the texture and to increase the sheer volume of sound in climaxes like this one in the last movement.

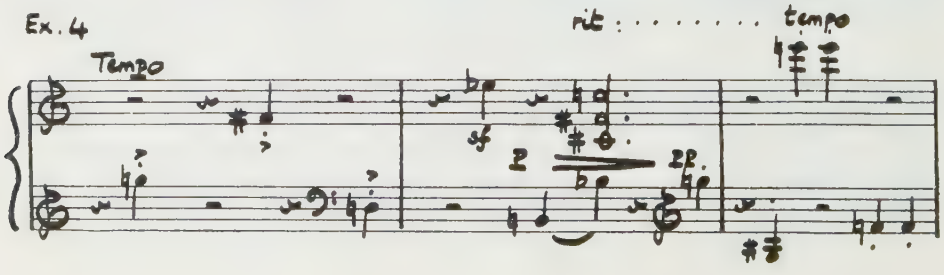


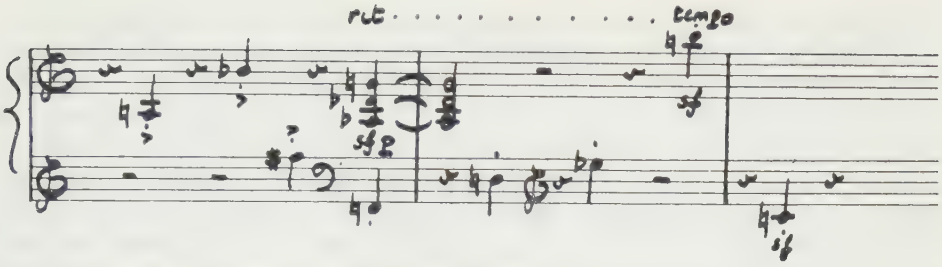
Little of all this is to be seen in the score and even less can be guessed from the context. This is odd, because when composers did not bother to write anything into their scores except the notes, I suggest the reason was not so much the existence of a secret code of performance known to everybody, but rather the feeling that the music would remain largely unaffected by its interpretation and that between the two there was a wide and easily discernible margin. Where, on the other hand, interpretation had become so much part of musical sense that notes alone were no longer considered capable of representing it, as for instance in the Introduction to the *Arioso* of the Sonata Op. 110, Beethoven would write 17 interpretation marks (plus 5 pedal marks) in five bars. If Webern omitted to write interpretation marks without which I know he considered his music meaningless, I suggest the reason lay in his dual attitude to his music: on the one hand his urge to express extra-musical contents went to such extremes that the notes had become almost incidental and were only regarded as carriers of expression; at the same time he strove to free music from this very bondage and to restore to it that autonomous structural sense it had tended to lose during the romantic period.

However this may be, it appears that an authentic performance of a Webern score is impossible without direct tradition. But even if the performer has received such additional briefing there is a further obstacle between Webern's thought and the listener.

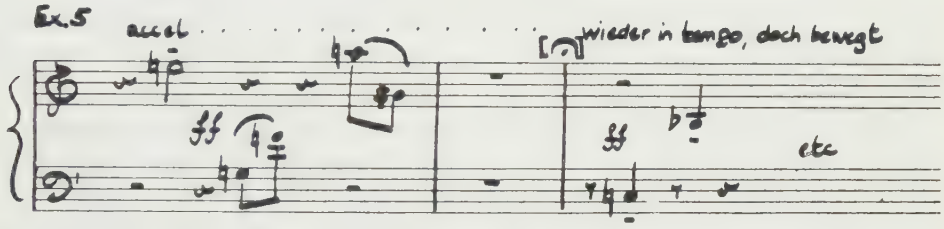
The problem of audibility in Webern is not usually of the conventional type. There are, of course, instances, such as the first movement of his *Symphony*, where the listener's difficulty lies in disentangling the parts of a canon and its simultaneous inversion, all constantly crossing from one instrument to another. But more often it is metrical complexity that mars the approach: not too many things going on at the same time, but too few things at the required time. There are sometimes not enough notes on the beat to make syncopation recognizable as such; and so we are robbed of one of the basic prerequisites of all musical understanding: our ability to feel the regular beat of the metre and to relate to it the rhythms we listen to.

In those days in Vienna we used to say that Webern was nowadays composing exclusively on 'er' (derived from 'one-er and-er two-er and-er'). There are bars in the last movement of the *Piano Variations* where this dearth of coincidence between notes and beats, coupled with the constant fluctuations of *tempo*, make any counting impossible.





How far these fluctuations tend to invade the nondescript regularity of the metre and invest it with a significance of its own can be seen in the following two bars from the same movement. They are both marked *accelerando* although the second bar consists of a rest after which Webern wanted a pause on the bar-line. This is followed by a slower *tempo*.



Whenever we got to this spot, Webern would not only conduct my playing of the first bar, but would continue to count out in a loud and excited voice the three *accelerando* beats of the rest-bar: 'One, two, three!' He would then pause before continuing to conduct my playing of the next, slower bar. It was clear that what mattered to him here was not the over-all length of the silence between the two sounding notes: the pulsating of the time-continuum had itself become a primary compositional element.

We can, of course, in all music distinguish between rests that contain music and others that don't. But here the changes of *tempo* have become so numerous compared with the number of notes as to reverse the usual ratio of sounding and non-sounding events in music. This tends to upset the familiar relation between rhythm and metre where the one is understood as the significant exception from the insignificant rule of the other. Instead there is a tendency towards a strange relativity—generally characterestic of dodecaphonic mentality—where one significance has to be related to another.

This situation cannot possibly be comprehended by mere listening and some additional, non-acoustical information is required. Such need for visual help or, worse still, for verbal commentary, is usually considered a disgrace for music, the art of the ear; but this objection will not stand up to closer examination.

The basic characteristic of our musical appreciation is the ability to bring order into what we hear, to become conscious of patterns, groups, similarities. These processes while dealing with musical material, with tones, are themselves essentially

intellectual. We see this when we compare our listening with that of the animals. They are, of course, able to receive simple acoustical impressions and to distinguish between them. They prove this by reacting to them in a predictable way and by learning from acoustical experience. But it is our human privilege to disentangle clusters of simultaneously sounding tones or even successions of tones, or to notice changes in a theme and to follow its development. Yet no one would claim that all this is due to a superiority in our sense of hearing over that of the animals. It is thus quite in order for the eye to come to the aid—not of the ear, but of the mind which is engaged in sifting and sorting musical sense-data.

We all perform these labours as best we can; indeed, one shudders to think of the thousands of variously graded, private editions of a Beethoven Symphony each performance throws up. Yet Beethoven's stature remains unimpaired and the validity of his output undoubted in spite of the sale of miniature scores or the printing of programme notes. Complexity can never be an obstacle to significance; only its absence can. What matters, then, is not how additional information about musical facts is conveyed to us, but whether once it has reached us—by whatever route—it makes a difference to our listening.

This brings me to the level on which Webern's thought is furthest removed from the listener. Perhaps the reader may wonder why, so far, I have not even so much as mentioned Webern's use of the twelve-note system. The reason is that throughout all those weeks of instruction and preparation Webern never once touched on the serial aspect of his *Piano Variations*. Even when I asked him, he declined to go into it with me—because, he said, it was important that I should know how the work should be played, not how it was made. Nor did he give the impression of a *reservatio mentalis*, of holding something back—as if he thought that perhaps I or his potential audience were not yet ready for it. Indeed, he acted as if he himself were not aware of the serial aspect of his work, or at least never thought of it when playing or discussing it. He seemed to imply by his behaviour that both he and we need only be concerned with the *prima facie* appearance of the correspondences and structures as we see them in the score and as they are made to sound according to his instructions—and that knowledge of their serial implications was not required for a full appreciation of the music.

At the same time I need hardly stress how deeply committed he was to the twelve-note system. 'A composer', he used to say to his pupils, 'must learn to listen to the basic series and force it to yield its secrets.' And shortly before his death in 1945 he wrote in a letter to a friend: 'Imagine the impression it made on me when I came across the following lines in Hoelderlin's notes to his *Oedipus* translation: "Other works of art lack reliability as compared with those of the Greeks. They have, at least up to now, been judged more by the impression they convey than by the artistic considerations and methods through which their beauty is created." Do I still have to tell you why this passage moved me so deeply?'

This letter shows his belief in the desirability of creating artistic values by demonstrable intellectual processes. But he evidently did not expect us to be directly aware of these processes in the special case of his twelve-note compositions. He must, there-

fore, have believed that the very fact that what we actually hear was not simply invented for its own sake but was the result of setting up serial relations between the notes—that this fact would in some way invest the music with a significance it would not otherwise possess. The proposition seemed to be that in pre-dodecaphonic works all compositional elements contributed equally to our enjoyment of the musical fruit salad, affording special delights to the connoisseur who could detect and isolate their taste—while Webern added to the *mélange* a dash of a very special rum which was not meant to be, and perhaps could not be spotted—and yet was responsible for its taste.

This novel but not self-contradictory claim, never quite so explicitly stated, I for one accepted unquestioningly for a long time. But what with serialism conquering considerable parts of the civilized world and non-conformism evidently being habit-forming, I have in recent years begun to wonder whether serial manipulation is audible in the last permissible narrowing of the sense of that term: whether, however subliminally administered, it does in fact make a difference to the taste of a composition.

It seemed impracticable to put this question to the test by playing large numbers of unknown atonal works to even larger numbers of experts in order to find out whether a statistically significant percentage would be able to tell the serial from the non-serial ones. But as, in the course of time, my doubts about the outcome of such a plebiscite grew fewer I decided to go back to the beginning and to re-examine the fundamental claims with which Schoenberg, more than thirty years ago, established the twelve-note system. Was it consistent with the material for which it was designed? Was it consistent within itself?

To the end of his days Schoenberg stressed the paramount importance of the thematic aspect of the series. And, indeed, there is real significance and achievement in consciously using all the twelve notes for the creation of themes. The genuine sensation of completeness which this produces is confirmed when prematurely repeated notes in early Schoenberg strike us almost as an imperfection.

But this principle of maximum change, like most good things in music, is really based on a tonality sensation. Avoiding the repeat of any one note before the other eleven have appeared was, of course, meant to prevent its tonal preponderance and thus to give expression to the principle of atonality. Yet our undeniable satisfaction in listening to a succession of 'all available' notes depends on our keeping a check on their newness. This implies comparing each note with those that have gone before, which in turn creates a new kind of hierarchy among them. The contrast between the complete freedom with which the first note enters and the increasing predictability of each successive note moves us to invest them with different tonal values. We tend to regard the first as a kind of tonic since it delineates the field and sets us off counting, whilst we are inclined to interpret progressive predetermination as a lessening of importance.

On the other hand the principle of change is not as radical as one might expect it to be. Limiting it to 'the' twelve notes and excluding all the others as 'doubles'

proves to originate from tonal concepts; because the implied assumption of the identity of a note with all its octaves is only true if that note is regarded as a member of an harmonic function. Real atonality should have no qualms in availing itself of all the semitones of the continuum without discriminating between them as long as their vibration numbers are different. If it is felt that atonality cannot afford to do this without reminding us of our shady past, such historical explanations may raise some doubt as to whether atonality exists at all.

However, the panchromatic principle of maximum change is far transcended by the claims of the twelve-note system whose novel and characteristic feature is the emancipation of pitch-relations in music. Both in its basic concept, the series, and in its solitary if all-pervading instruction that everything in a composition must be derived from this series, the twelve-note system is exclusively concerned with inarticulate sets of pitch-relations from which rhythmic articulation and harmonic implication are assumed to have been abstracted. This purely mental postulate for which characteristically enough we still have no colloquial expression, and which is sometimes called pitch-set, ignores the peculiar position of pitch-relations amongst the three elements of music; for while both harmony and rhythm can be experienced without reference to either of the others, pitch-relations cannot. They can, of course, be written down in single file and equal notes so as to exclude rhythmic and harmonic allusions; but our experience of them can never remain unaffected by harmony and rhythm. Since we inevitably tend to project patterns into what we perceive, we instinctively group the notes of a pitch-set according to chords that are, however vaguely, suggested by its outline and according to possible metric analogies whose rhythmic emphases again allocate harmonic priorities. How we do that depends on our collective and individual training and intelligence; but we are unable to ignore the basic characteristics of the material which confronts us. It is the unique property of tones to be able to transcend their individual identity of mere pitch and to become part of a more profound identity which is not the sum of its constituents: of a chord. But tones can even be understood to represent chords in their absence. They are enabled to do this through the rhythmical context which turns the relations between them and their fellows into an amalgam of pitch-relations and harmonic functions—in fact, into a melody.

The term melody is, of course, several thousand years older than the conscious exploitation of this quality inherent in tones. It was left to the West at long last to realize their true nature and potentialities and consequently to free harmonic function from its serfdom and to establish it in its own right. This created the conditions both for the development of polyphony (which must often have been tried and abandoned) and of big forms.

I suggest it might not be idle to speculate on whether pre-western melodies were, however dimly, felt to be related to a tonal centre—in spite of the theoretical evidence, so far as it has come down to us, pointing in the opposite direction. Indeed, intense preoccupation with monodic, horizontal theorizing may mirror the frustration of a musical culture that had failed to grasp the true nature of its material, just as our own age's loss of tonality has driven the post-Webernites into endless computation of series possessing particular mathematical qualities. It would seem an odd coincidence

that so many early musical cultures, both primitive and highly sophisticated ones, with their widely differing systems, should have used—more or less completely, but exclusively—tones of the diatonic scale. The diatonic distribution of tones and semitones represents so strange and arbitrary a selection from the pitch-continuum that it could not have come into being except on the merits of each individual note's relation to the key note, regardless of sequence. In any music, a discrepancy between the selection of the tones and their usage might be interpreted as failure to discover their inherent properties. This might explain our difficulties in understanding the musicality from which non-Western music flows, compared with the ease with which non-Europeans, even when brought up on their own traditional music, can see the point of ours.

Tonality would thus appear not as a phase or a style, but as the nature of music. Its discovery may account for the difference in achievement and in social, not to say commercial, status between our music and all others (concert halls being our exclusive copyright); and its limits may point to the limits of the art of music altogether: the sharp falling off in quality of anything later than Beethoven and Schubert (on which surely all men of good will agree on reflexion) may simply be explained by the running down of the finite number of significant possibilities tonality can yield. In preferring an intrinsic explanation of that phenomenon to references to *Angst* or the lack thereof I closely follow the Emperor Franz Joseph, who once visited a Bohemian town, when the unimaginable happened and no salute was fired. Afterwards the trembling burgomaster, summoned for an explanation, said: 'There were three reasons for this most regrettable omission, your Majesty: Firstly, we had run out of gun powder, . . .' 'Thank you very much' said the Emperor.

But to come back to our neutralized pitch-set: it might be objected that even if Schoenberg's series does de-musicalize tones and fails to avail itself of their potential, might it not still be well worth while—considering the *impasse* we find ourselves in—to go on making music based on that concept? Even if the relations of tones represented no more than some sort of counterfeit in sound of the relations of their vibration numbers? When all gambits have been explored and we have to turn pawns into queens, does it matter if the game becomes less chessy, as long as we can go on playing? What's wrong with mere patterns? Why not draw instead of paint?

The answer is given by Joseph Rufer when he praises the pliability of Schoenberg's tone-rows and is naïvely unaware of bringing out their irrelevance as he triumphantly exclaims: 'By their rhythms ye shall know them.' Indeed, the inarticulate pitch-set does not occur in nature, and it is the composer himself who cannot help disturbing its state of innocence and preventing it from floating in an harmonic and rhythmic void.

And so the kinship of the four forms of the series (Original, Retrograde, Inversion, and Retrograde Inversion) which Schoenberg likened to one and the same hat being viewed from different angles, dwindles into insignificance as each set is invested with a different rhythm and thereby becomes part of a more powerful, because thematic identity; the differences between those four bits of music override the relatedness of their intervals so decisively as to make the latter appear incidental and totally

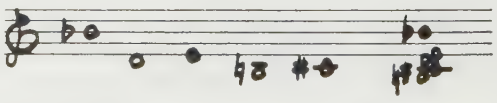
insignificant. Schoenberg's pitch hat turns round all right but the system of co-ordinates to which we have to relate it and without which we cannot experience it, the harmonic field, does not turn with it. If it did, if it were in fact a theme that was being played backwards, upside down, and so on, no one would object who was concerned less about the surfeit than about the dearth of significant complexity in serialism. It is this, incidentally, which makes apologetic comparisons between serial practices and the *Art of Fugue* or late Beethoven so futile.

Considering, then, the strangely equivocal and dependent position of pitch-relations in music, it seems unfortunate to base a compositional system on pitch rather than, say, on harmony or rhythm—or, preferably, on a combination of all three elements, of which some successful experiments are on record. . . . But it so happened that Schoenberg did base the twelve-note system on his concept of the series—and thereby put forward a number of false claims of identity of which his 'hat' is by no means the gravest. Nor are the strained relations between his system and the reality of music the only grounds for complaint—although psychologically they may have been responsible for these errors going so long unnoticed: the not specifically musical character of the series having from the outset discouraged any hope of judging the results of its application on purely musical grounds.

It seems incredible that in all these years no one (including myself, of course) should have objected to the basic assumption of the twelve-note system, which distinguishes it most fundamentally and uncompromisingly from all previous compositional practice: the assumption that chords can be derived from a sequence of notes so as to represent it and be identical with it—simply by sounding the notes simultaneously instead of successively. It is both the most revolutionary and the most erroneous claim made by the twelve-note system that such a sequence and such a chord are merely two different states of the same thing, namely of the identity of the series as conceived by Schoenberg. Now I suggest that the question: 'What constitutes the identity of a series?' is best posed in the form: 'What is it that enables us to tell this series from all others? What is it that makes this one different?' The answer is, of course, 'The way in which the twelve notes follow one another'. That is to say, while the identity of a series cannot be divorced from its constituent elements it is not defined by their sum, but transcends it and (as its name implies) resides in their sequence, in the links between them. This is where its unique significance lies, not in the twelve notes (which all series have in common) or in its stock of intervals (which each series shares with a number of others).

Now if we consider what happens when a composer decides to telescope, say, the first five notes of his series into a chord we see at once that what is being destroyed

Ex.6



by this operation is precisely that all-important element of the series, the only one that matters and determines its identity: the sequence of its notes. If proof were needed,

it would only be necessary to try and reverse the process: the chord could, of course, be unfolded into as many different sequences as there are permutations of its constituent notes; and there would be nothing to justify a preference for any one of a number of series to which the chord would appear equally related—a number that increases rapidly with each additional note and reaches the respectable figure of 479,001,600 in the case of a chord consisting of all twelve notes. It may be objected that these standards are too rigid for what is after all intended merely as a theme-variation, not as a 1 : 1, relation. Now it is true that one does not expect a variation to be able to guess its theme, yet it must have a fair chance of picking it out at an identity parade—a forlorn hope under the circumstances.

But not only the sequence, even the stock of intervals of the series is changed by that alleged derivation, since it adds, to the original intervals formed by the successive notes of the series, those between the first and third, between the second and fourth and between the third and fifth note; and while different series can share the same set of intervals, two different sets of intervals cannot belong to the same series. No, what that sequence and its chord have in common are the notes—that's all.

Just how much does this amount to? Certainly both chord and sequence represent the same selection from the totality of the twelve notes and mark the same stage on our perpetual journey towards that completeness which, as we saw, is a panchromatic rather than a serial achievement. But that would not account for an undoubted feeling of affinity which the hearing side by side of chord and sequence in my example induces in us—in spite of everything I said. Now I deliberately chose not the beginning of an existing twelve-note row, but the five-note row of Schoenberg's piano piece Op. 23/3. I did this partly because these five notes contain a particularly unmistakable allusion to D minor, but also because that fact may have played a part in deluding Schoenberg—who in this piece first tried his hand at serial manipulation—into believing that it is possible for the series to go on existing in the chord; while what actually happens, or can happen, is that we hear the chord, or more precisely its harmony, in the sequence—which is then understood as being derived from the chord. In this sense all the permutations of its constituent notes into which the chord can be unscrambled are equally related to one another and to the chord—because they are all, sequences and chord alike, carriers of the same harmony.

Clearly this is not the kind of connexion Schoenberg had in mind—nor does he, in his subsequent treatment, or rather lack of treatment, of his chords act as if it were. Indeed, it was the professed aim of serial derivation of chords to make up for their loss of harmonic function; although a contributory, less conscious motive may have been the wish to establish beyond doubt the possibility of such a loss and thus of atonality: in the words of the satirist Morgenstern: 'Nicht sein kann, was nicht sein darf'.

The attempt to create a link between the horizontal and the vertical other than that given by the musical nature of tones, disregards the degree to which one of these spheres is determined by the other. They are less independent of one another than the geometrical co-ordinates after which they are named and according to which they are notated. The geometrical co-ordinates will serve any two lots of facts that we

decide to relate with their help, as long as this is done correctly according to the factual relation obtaining between them. But when we speak of the horizontal and vertical in music it means that we have already decided to use the co-ordinates for showing relations between pitch and time. This implies the need to proceed, here too, only within the limits imposed by the nature of their relations. In other words the principles according to which chords can be fitted to melodies or *vice versa* are not a matter of convention.

The disregard for these realities was motivated by the hope that through the extension of motif-relationships to the vertical the principle of variation could not only survive harmony, but take over its function. There is something disarming in this 'Le roi est mort, vive le roi' attitude and the way it tries to gloss over the difference in status of the two principles.

In the absence of a general conceptual meaning in relation to which everything that happens can be understood (as in the literary arts), in music event can be joined to event only through the help of repeat. This, apart from mood-affinity, is music's only means of generating continuity. Variation is the art of combining the need for repeat with the need for carrying on the action. It does this, of course, by keeping at least one of the three elements—pitch-relations, harmony, rhythm—recognizably constant for the purpose of identification, as a *tertium comparationis*, while new events take place in at least one of the others. Without this factor of repeat a variation is not a variation since it cannot be felt as a modification of the original.

For ages variation had to make do with the interplay of melody and rhythm only. When in our era harmony was distilled out of the compound of melody it put a particularly powerful third force at the disposal of variation, because like rhythm it contains its own self-explanatory system of reference. Both tonal pull and metre are particularly apt to serve in variation since we remain unthinkingly aware of them; they are carried along easily without burdening the attention. Harmony's emancipation was thus no doubt responsible for the spectacular success of the practice of variation in all its forms. To try and increase the scope of variation in order to counteract the loss of its life-giving force surely meant mistaking the symptom for its cause.

Treating chords as variations of pitch-relations leaves all basic conditions of the principle of variation out of account. The only thing that is kept constant in this operation are the notes; but they are unable to serve as a *tertium comparationis*, since, as we have seen, they cannot adequately represent a sequence. On the other hand, the change does not consist in a new event replacing the old within the same element, i.e. one rhythm followed by another rhythm or one harmony followed by another harmony; instead the element itself is alleged to be transformed, we can now only say, into another element—as if a rhythm could be transformed into a harmony or blue into sour. Simultaneity is neither a variation nor a transformation of sequence. It merely means taking the time-factor out of sequence and thus abolishing it without a trace.

Contrary to current opinion which hails serialism as the art of variation led to its penultimate triumph, the truth is that, with harmony lost and its pitch-relations

fixed, serialism has never legitimately gone beyond its historical beginnings, when it reduced variation to a tautological repeat of the pitch-set relieved only by rhythmic change.

However, the failure to distinguish between the terms of a series and their sequence is not the only crack in the foundations of the twelve-note system. The further question arises whether by the terms of a series are meant its notes or its intervals. This question, never explicitly answered or even acknowledged by Schoenberg, is not as trivial as it may seem. While in the one case the requirements of his series would be met (as he said they were) by the appearance of a note of a certain name, in the other case the appearance of a certain interval with a fixed direction, either up or down, would be required at each point.

For almost all intents and purposes either of these formulations is as good as the other and both lead to identical results. Yet there is one instance when they don't. I mean that seemingly least controversial clause of Schoenberg's definition of his series which claims that the identity of a series remains unaffected by the octave transposition of any of its notes. Now admittedly a note has a closer relation to its octave than to any other note, owing to the greater blending produced by the more elementary ratio of their vibration numbers. But they are not identical except in respect of their harmonic function. It seems, therefore, surprising that Schoenberg, who in building his series was concerned not with harmonic function but with pitch-relations, should in this one respect have disregarded the function of his notes as boundaries of intervals and should instead have concentrated on what to him more than anybody else should have constituted a similarity in name only.

Now I suggest that Schoenberg himself showed that in fact he conceived of his series as consisting of a sequence of intervals and not of a sequence of notes; this is implied in his claim of the identity of a series with its inversion. For here each interval is turned upside down regardless of the name or identity of the notes that form it. But if we must assume, as I think we must, that the identity of a series consists of the sequence of its intervals and not of its notes, then this clearly condemns Schoenberg's indifference to octave transposition of single notes. Because the fact that, say, the intervals D F and D^1 F are bounded by notes bearing the same name is as irrelevant as the fact that, due to their being members of the same harmony, they are known as complementary intervals. What matters, from the point of view of the pitch-set to which they belong, is that each gives rise to the establishment of a different series.

Here, then, the system meets defeat on its home ground. It fails to achieve what it sets out to do not so much because of an incompatibility of its procedures with the nature of music, but because of contradictions between its own definitions and practices. Confusion of a sequence with its terms leads to claims of non-existent correspondences between chords and sequences; failure to distinguish between the name of a note and its function, between serial and tonal concepts and between notes and intervals, leads to calling things the same that are not the same, to claiming series as identical which are really different.

These fundamental errors and contradictions have been hiding behind Schoen-

berg's vague and misleading formulation: 'Composition with twelve notes related only to one another'. His idea would have been more accurately expressed by the wording: 'Composition with sequences of eleven intervals of fixed direction'. That formulation, however, would have precluded some of the system's most characteristic procedures—and so serialism might conceivably never have happened.

One result of such false notions of identity and the consequent impossibility to test derivation, is its erratic and partial application and the arbitrary assignment of serial significance to some relations within a composition and not to others. It is one of the most astounding differences between tonal and serial organization that if a piece is in C major, all of it is in C major while by no means all aspects of a serial piece are equal before its law.

Serialism's integration of the vertical is strangely limited. Under its aegis the vertical aspect of music is somewhat reminiscent of cosmic space: most of it is empty and not pervaded by the forces of order, organization existing only in comparatively small, autonomous clusters. For, not only does serialism confine itself to that secondary aspect of chords which might be called their geometrical shape, i.e. the spacing out of their notes, ignoring their natural tendency to point beyond themselves; it offers no advice at all as to the pitch-level at which these chords are to appear. Again, while trying so hard to define and regulate the shape of its horizontal lines, the system has nothing to say about the distance at which they are to travel from one another, apart from trivial taboos of octave doublings and premature reappearance of notes. The intervals formed by any two simultaneously sounding notes of such lines, or the intervals between the notes of a chord and those of the melody it accompanies—they all may or may not be taken into account serially, at the discretion of the composer. Mostly they are not, in spite of their undoubted and democratic right to be heard.

This indifference to transposition reveals the belief that the power of shape and thus of sequence is sufficient to override the unitarian demands of musical space and to enforce its division into serially active compartments floating in a serial vacuum.

On the other hand, when this indifference to transposition invades the series itself, it tends to destroy its identity which after all is defined as nothing but a sequence of differences of pitch—by allowing parts of it, however small and numerous, to be transposed. Here that same arbitrary relativity and selectivity we observed in the vertical sphere is now active in the horizontal: because, of the eleven intervals with which we are eventually faced after such partial transpositions have been carried out, some are assumed to represent the series while those forming the joints are regarded as without serial significance but merely due to the change in level. Since such levels are not supposed to be felt through reference to a tonality and in the absence of rhythmical identification, the only hope of our remaining conscious of the sequential identity of parts of a series, torn asunder by transposition, lies in the sheer length of at least one of them.

Retention of the sequential identity of parts of a series that are to be transposed is a basic condition of transposition without which the term loses its meaning. We

see this in the extreme case of the single note whose sequential identity is nil, its identity residing in its pitch only: if that pitch is altered, we prefer to speak of a different note rather than clipping an identification disk to it as to a migrating bird to mark its origin—or explaining in a footnote that this E flat had once been a G sharp. This transposing of several fragments of a series on to different levels, characteristic of post-Schoenbergian theory and practice, means, of course, the emergence of a new series for everybody except the composer. This, one hopes, may partly account for occasional disagreement among experts as to whether a certain work is derived from one or from, say, five different series.

Here we have a notion of identity which reaches into the realm of phantasy. It originates in the projection of serial significance into the notes instead of into the sequence of the intervals: but it then goes on beyond that to a further confusion which can only be described as the evident belief that, once the composer has arraigned the twelve notes in a certain order, this amounts to a kind of baptism, that the notes have thereby acquired a certain quality which will somehow stick to them throughout the duration of this particular piece regardless of what happens to them further. They are used as if they were material objects marked in indelible ink with a number giving their original position in the series and perhaps with a colour to show which of the four forms of the series they belong to.

Nor do we meet this absurdity only in connexion with transposition. Without painting and numbering of the notes it is meaningless to split a series up into groups of from two to four, bringing some as sequences and others as chords accompanying them: or to construct chords some of whose notes are 'contributed' by one form of the series and some by another; or to write two simultaneous lines that are melodically clearly distinct and start off each consisting of a different form of the series but swopping half way through; or, most shattering of all, to alter the position of a note within a series and let 'No. 9', say, appear between 'Nos. 3 and 4'.

This manhandling of the series has contributed no less than any other misuse towards degrading serialism into a mere calling of names. It has played perhaps the most decisive part in invalidating step by step the original rule—that everything in a composition must be derived from the basic series—through a successive widening of the term 'derive' until that term had finally lost all meaning and serial manipulation had in effect returned to the non-selective use of the twelve notes which had preceded it. To borrow a frustrated summing-up from another field, it had become a matter of 'one damn thing after another'.

Far from overdetermining composition—the charge usually levelled against the twelve-note system—it determines it so little as to be completely irrelevant. A novel situation has thus arisen where, instead of the familiar identity of a composition with all its note-relations, one major compositional activity does not contribute to the musical sense but seems to run parallel with the music without ever touching it. This applies, of course, only to the manipulation of the series as distinct from the very real part the series plays in motivic and thematic relations of the conventional type. When, for example, Schoenberg decides to compose the first phrase of the main theme of his *Piano Concerto* as a twelve-note row, his choice becomes successively

restricted as he progresses and uses up the twelve notes. If he then decides to have the second part of this theme consist of the retrograde inversion, that decision itself, although he need not have taken it, relieves him of command over his pitch-relations (except for octave transposition). The accompanying figurations, on the other hand, are *de facto* completely free and any effort that went into deriving them from the series or indeed into analyzing such derivations is wasted.

This discrepancy between a vast intellectual effort and the simplicity of the figurations that are finally arrived at, and, one feels, might have been come by on their own, stands in contrast to the ruthless processes of elimination that preceded and directly created simplicity in the Classics.

In serial music the notes lead a Jekyll and Hyde existence: they form the sounding realities which we hear and at the same time they belong to serial complexities which form a kind of second code, a silent world of ABEGGs and BACHs. This play on the double meaning of the names of certain notes, although without bearing on the music, is consistent, at least in German; while the relations of the notes with the serial alphabet, which is devised anew for each piece, are purely imaginary.

It follows that the composer, in so far as he is engaged in manipulating the series, is not producing what he thinks he is. Just how catastrophic is this? Does it summarily condemn all dodecaphonic works? Or, as I still prefer to put it: since we cannot react to what exists only in the composer's imagination, how can we account for the impact of men like Schoenberg and Webern and the vast distance we sense between them and others who shall be nameless?

For one thing, the twelve-note system never set out to do more than impose a condition on the working of one only of the three elements of composition, without any attempt to regulate or influence the others. This condition was confined to the field of pitch-relations and merely insisted on the unifying principle of sameness counteracting continual change. In this it failed; but through this very failure to set up a compelling standard of identity it created an infinite number of possibilities at each point and thereby reinstated in this field, too, the familiar distinction between good and bad choice as a criterion of good and bad composition. So while it did not do any good, it did not necessarily do any harm either; what matters is the use a composer makes of this freedom of choice.

There is, of course, the extreme case of the *Bastler*, whom the system provides both with a smokescreen and a meccano-set to keep him busy. He arrives at his notes by sheer manipulation (which can be learnt in the course of a morning) and leaves them to form themselves into the groups and shapes we actually hear and perceive—accidental and unintended by-products arising from his serial activity.

At the other end of the field the notes of a freely invented atonal composition are *post festum* explained and justified in serial terms, and ascribed to alleged serial correspondences, which, as we have seen, manipulation will yield in any desired quantity.

While there are plenty of instances of both, real life generally is more varied and

complex. It is true that the more far-fetched and hair-raising the derivations in a score prove to be, the more assured do we feel that here musical creativity has been unconcernedly at work. Yet we are after all dealing with composers who believe in the dodecaphonic way of life, and so we have to assume even in the most creative minds an infinity of ways in which serial preoccupation and musical creativity intertwine and overlap. Since these relations and interactions are confined to the composer's mind and can only be biographically true, they are a matter for speculation. But all dodecaphonic works are bound to contain a number of decisions which the composer has taken not on aesthetic but on serial grounds. How can such a work be immune against the measure of serial irrelevancy it does, after all, contain? I suggest the answer lies in a certain indeterminacy of pitch in atonal thinking.

While there is real difficulty in defining the nature of a musical idea, it is surprising to find that generally pitch-relations are its least characteristic feature. There is, more especially, a type of idea which arises spontaneously as a totality whose distinguishing features are at first only dimly conceived. This proves in tonal composition, too, capable of pitch adjustment, even at comparatively late stages of its definition. Such 'total' ideas are defined by their rhythm plus the rough outline of their shape, i.e. of the approximate dimensions of their ups and downs. While in tonal themes the final adjustment is, of course, limited by the requirements of tonality, the correction of the atonal shape can take place within a semi-tone or two. (Incidentally, we see how fundamentally the concession of octave transposition assists the dodecaphonic composer in hanging on to the essentials of his design whenever he decides to go the whole hog and make an honest series of her.) The everchanging level of consciousness at which this state of affairs is rationalized by the composer concerns us as little as its ethics. What matters is that the absence of tonality allows serialism to play on that feature of initial indeterminacy in atonal ideas which they share in principle with the whole class of total conceptions.

This pitch-indeterminacy of atonalism, and the exclusive preoccupation with pitch it has produced in serialism, seem to make strange bedfellows. It may seem incredible that it really does not matter whether a note is B or C or C sharp in a system that deals exclusively with such distinctions. But then it is perhaps not so unnatural for a deficiency in a certain field to create its own dogmatic cerebration. Indeed, quite apart now from its eventual bankruptcy, the very idea of fixing the pitch-relations from the outset implies a renunciation of the use of this compositional element and points to a certain insensitivity and lack of fertility in this respect; it may be taken as an indication that the real powers of atonal composition—as of any other kind—lie in the invention of rhythms, of rough shapes and, perhaps, of harmonic functions that may as yet be too complex to be traceable. Twelve-note composition would thus appear to achieve significance not through, but in spite of, its insignificant serial detour.

CONFUSION AND ERROR (II)

Norman Del Mar

BEETHOVEN—OVERTURE, LEONORA NO. 3, OP. 72A

1. Bar 31: It is sometimes doubted whether the second horn chord should still be *forte*, since it comes together with the woodwind *p*. All editions agree upon this, however, and the effect is certainly correct and characteristic.
2. Bars 82/3: Editions vary as to whether the brass should tie their semibreves over to the crotchets in the following bar or whether the rhythm begins anew with the first note of bar 83. Comparison with bars 391/2 is not very profitable as the passages are not quite parallel.
3. Bar 106: In some editions (including Breitkopf) the 2nd Trombone has a B in this bar, in others D sharp. The latter is the more logical since the instrument thus follows the bass line exactly.
4. Bars 155/6: Here is a most interesting point. The imitations on 2nd Vls and Vlas come in a bar earlier than on every other parallel occasion throughout the work, and it is worth considering whether here too they should be moved to the corresponding position. All editions agree in the matter and if it is in fact an error then that error must date back to a very early stage—perhaps the manuscript itself.
5. Bar 237: The delayed entry of the oboes in this bar is very odd. Even if it could be heard, one wonders whether there is much point to be made or whether the manuscript was once more unclear!
6. Bar 280: All editions agree in the re-marking of the strings to *p* after their *pp* two bars earlier. This could be correct and indeed there are some very subtle changes through the degrees of *p*, *pp* and *ppp* shortly after. Yet the effect of the sudden doubling of the accompaniment in this rather inconsequential place does not quite ring true.
7. Bar 421: Here is another outstanding query. In the corresponding bar in the exposition (bar 137) the G♯ is changed to ♮ at the end of the bar. This is not only sequentially necessary after the F♮ two bars earlier but is also featured for the length of a whole bar at the equivalent place in the *Leonora No.* 2 (Bar 173). In Bar 421 however, the E flat is missing in all editions so that once again any suspected error must originate from the autograph.
8. Bars 499 *et seq.*: The marking of the crotchets in the 1st Vls is worthy of scrutiny. Beethoven's use of *staccato* dots raises innumerable problems. The middle movement of the G Major Piano Concerto is a famous case in point. Since however in the present instance all editions agree and the placing of the dots is by no means whimsical, it is perfectly possible that Beethoven really meant exactly what is written.
9. Bar 514: Another serious textual problem. There is a school of thought which considers the initial C of this passage to be incorrect and replaces it by D, thus

bringing it into line with the corresponding passage in *Leonora No.* 2. Indeed, Eulenburg actually prints the D—a very hasty decision. Various distinguished commentators have discussed this variant; Weingartner in his book on conducting (p. 22) dismisses the alteration to D as an 'unmotivated and enfeebling substitution' (!), whilst Tovey in Vol. 4 of his essays (p. 39) takes the C for granted, and draws deductions from Beethoven's revision of the earlier version.

In recent years no less a figure than Toscanini supported the D, playing and recording the passage thus altered. Yet there remains considerable force in the view that the C is a deliberate revision giving to the whole passage a strong tonic function which is emphasized by the stress on the note C from bars 526 onwards, a section and effect not to be found in the No. 2 Overture.

10. Bars 554 *et seq.*: Bearing in mind that all the horns are pitched in C, Beethoven's persistent use of the second pair is most remarkable and suggests that he wrote for specific players. In fact all the important work in the Overture is given to the 3rd and 4th players. Already at bar 404 one might have expected the 1st pair to have played the corresponding passage to their colleagues' solo in the exposition. In the present passage the differentiation has still less significance and in practice the part is generally executed by all four! A further point occurs ten bars before the end, where many conductors continue the horn parts with the woodwind for three bars longer than the composer has indicated. As however the notes are not only possible on Beethoven's instruments but have actually just been played by them, there seems no reason why Beethoven should not have written them had he so wished.

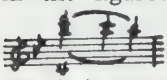
11. Bar 578: It is remarkable that the timpani figure does not follow the rhythm of the trumpets in this bar, for otherwise the two coincide exactly up to and including bar 605. The exception may, however, be perfectly correct, especially in view of the fact that in this bar alone the trumpets play an E not available to the timpani.

12. Bar 606: Some editions omit the single *f* here, and indeed the whole question of dynamics is in some doubt. After the *ff* in bar 578 the long gradual *cresc.* culminating in a drop to *f* is uncharacteristic. On the other hand the sudden *fff* without *crescendo* during the previous four bars is most typical of Beethoven's mature style. The trombones, moreover, have no new dynamic for their significant entry at bar 590 and it is probably here that the error arose. A general mark of *mf* at this point would probably be the most satisfactory overall solution to the problem, but it must remain a decision for the individual interpreter.

HAYDN—SYMPHONY NO. 102 IN B FLAT

1. This symphony was issued by Breitkopf not only in the familiar 8vo form, but also in large 4to at the time when the complete edition was being prepared. It goes without saying that the two scores are very different. The Eulenburg miniature score has also appeared in two forms, the first of which corresponds exactly with the 8vo Breitkopf. This latter 8vo score has the usual preface stating that it has been carefully revised according to the autograph, and that it differs substantially from all earlier editions; and it draws special attention to the independent cello line in the slow movement which it states was entirely missing from all earlier editions. The revised Eulenburg also goes back to the manuscript but the result is very different not only from the 8vo but also from the later 4to Breitkopf score! It was prepared in 1934 by Dr. Ernst Praetorius (who made companion editions for Eulenburg of several of the late Haydn symphonies) and contains several startling discoveries.

2. I. Bars 3, 8 and ff: The many expression marks added into the Breitkopf 8vo score are naturally also in the parts, with the result that these do not correspond

at all with the newer 4to score, in which Haydn's original text has to a large extent been restored. In the *Allegro vivace* which follows, the phrasings and bowings need examination since the string parts have been subjected to still further editing, not to be found in any score. It is, of course, possible to overdo the revision of the Breitkopf material in respect of phrasings, since many of them, apocryphal though they may be, are essentially practical or even desirable. For example, 3 and 5 bars after letter D (bars 94 and 96) the purist editions remove the slurs in the figure: and in bar 97 change the violins' phrasing to:  which the 8vo score breaks up to correspond with bars 93 and 95. It is naturally for each conductor to consider the relative merits of such variations of phrasing without regard to scholastic restoration.

3. I. Bars 225/6 (2 before H): The new Eulenburg suppresses the timpani *crescendo*. Both Breitkopf scores gives this extremely characteristic touch and one is most loth to lose it. A similar case, just as disconcerting, is the suppression of the rise and fall of the drums in the famous first bar of the *Drum-roll* Symphony. Eulenburg may be in the right from the scholarly point of view, but experience shows that the autograph is not necessarily the final arbiter in such a quandary!

4. I. 296/7: The *poco rit.* in these bars is apparently editing, but the musical sense demands some give in the *tempo*.

5. II: The Eulenburg editor claims that the *con sordino* should apply to horns and trumpets, instead of trumpets and drums. This is a thorny problem since the placing of these indications in the autograph is somewhat equivocal. Dr. Praetorius may well be right, and there is certainly logic on his side in the tonal balance of the brass ensemble. Yet the trumpets and drums belong together in the military sense and Haydn was quite capable of exploiting such an idea. The extraordinary held note in the two trumpets five bars before the end of the movement is evidence of this. (The latter effect was, incidentally, cut out by Dr. Koussevitzky in his recording of the work but fortunately no score doubts its authenticity!)

6. II. Bar 1: Perhaps the most problematical bar of all. Every score gives A natural in the violas on the third beat of the bar. At each return of the melody the note is changed to A flat, giving the infinitely more striking and satisfactory diminished 7th chord. But at each such repetition Haydn marks the place *sf* as if to draw attention to the new and interesting harmonization. The Breitkopf parts, however, give the violas A flat from the beginning and it is difficult to be sure that they are wrong. The A natural does not in fact sound very well. Reference to the F sharp minor Piano Trio (which has a version of the same movement a semitone higher) is not very profitable since this first statement of the opening 16 bars does not appear there at all, and the *sf* diminished seventh thus comes in the very first bar. This is a typically infuriating instance of a place where Dr. Praetorius could have discussed the autograph, but he merely gives the A natural without comment.

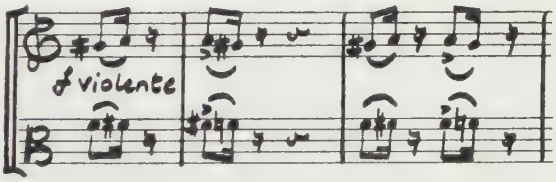
7. II. The famous independent cello line mentioned so proudly in the preface to the 8vo score is shown by Eulenburg to have been headed by Haydn 'Solo Violoncello'. Acting on the letter of the law Dr. Praetorius accordingly gives the entire line to a single player throughout the movement, the *tutti* cellos playing *col Bassi*. But it is unlikely that Haydn, with his enormous practical experience of orchestration, would entrust a line of this kind to a single player and then overweight it time and time again so that much of it would be virtually inaudible! Moreover many passages such as bars 43/44 require equal distribution of the string parts to be effective, and a solo cello could not support the entire weight

of the orchestral violins and violas. The indication *solo* can often mean *obbligato* as applied to a section, without necessarily limiting it to the leader of that section. Neither the earlier nor the later Breitkopf scores, let alone the parts, have any mention of this and I am convinced that they are right.

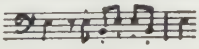
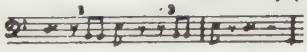
8. IV. Bars 173/4 (7/8 after letter V): The trumpets' held C's (sounding B flat) in these bars are often regarded with considerable suspicion. They are certainly dissonant and some conductors actually omit them on this account. But bearing in mind the composer with whom we are dealing it is highly probable that this vividly presented minor ninth is one of the daring strokes for which Haydn is justly famous.

LISZT—EINE FAUST SYMPHONIE

1. The various editions of this work differ materially from each other in a large number of places. The basis of the text is the original material published by Schuberth, and the Eulenburg miniature score edited by Georg Göhler closely follows this, though it also incorporates some revisions made by the composer. The Breitkopf material, edited by Berthold Kellermann and published as late as 1917 in the complete edition of Liszt's works, again claims to follow the Schuberth with similar authoritative emendations, but is so radically different as to amount to a new text. The curious thing is that both Eulenburg and Breitkopf have lengthy prefaces which, disappointingly however, deal with only one or two of the numerous deviations.
2. I. 6 bars after A: Breitkopf adds a figure for 2nd Vls and Vlas not found in the other editions:



This naturally recurs during the three bars before B.

3. I. 2 bars after E: There is no contradiction to the earlier marking for timpani *mit Holzschlägel*. This is a matter for serious concern throughout the movement, since if Liszt's specific instructions are to be taken as exhaustive, long stretches of normal timpani writing will remain with wooden sticks.
4. I. 2 bars after 0 *et seq.*: The timpani part here is very much open to doubt. In the original text, reproduced by Eulenburg, the part read: as also at JJ, but changed to:  in the passage at Q. Breitkopf simply gives:  for all three passages alike.
5. I. 3 after P *et seq.*: Breitkopf adds for trombones, with the equivalent 4 and 8 bars later. A similar addition for bassoons occurs at HH.
6. I. 5 after P: Here, as distinct from the parallel bars before and after, the basses curiously enough leave the cellos to finish the phrase alone. This must be an error and in fact the Eulenburg editor remarks upon it in a footnote, though the matter becomes obscured through faulty page references.

   I. Letter R: The indication *trillo* above the figure for 1st Vls and Vlas is most remarkable, since Liszt writes out twelve notes (of only moderate speed) to the

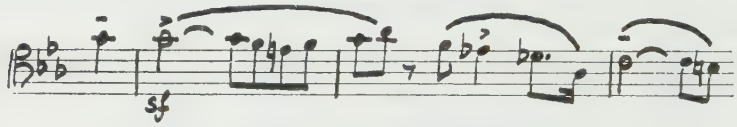
bar. The section should be compared with the return passage at KK where the violins have ordinary trills.

8. I. Letter Y: Eulenburg's use of 'new notation' for the horn in bass clef is confusing and I know of no instance of Liszt's using it. Both Schuberth and Breitkopf keep the passage in the treble clef with the use of leger lines.

9. II. Letter D: Eul. omits the alternate R_____ and A_____ given here for five bars in the other editions. This notation for *rall.* and *accel.* so characteristic of Elgar's later scores appears throughout the work—though by no means consistently—in both Schuberth and Breitkopf. At GG in the 1st Mvt. the indications are missing from the Breitkopf parts, which give a set, at G in the 2nd Mvt., not to be found in any other edition, but then leave them out in the corresponding place at Z!

10. II. 3 bars after J: The horns' semiquaver upbeat at the end of this bar (together with the *mf*) does not appear in Eulenburg at all, though given in both Schuberth and Breitkopf. This would seem to suggest a misprint, yet at no other time in the Symphony does this theme begin with a rhythmic upbeat (cf. for example letter X in the 1st Mvt.), so that the point remains in doubt.

11. II. Letter K: The Breitkopf score prints two versions of this passage; the first, incorporated into the main text, corresponds with that given in Eul. and Schuberth; the other, given above the first in small print, reads as follows:



with the 2nd Vls altered appropriately in the second bar to match. Considering that this variant appears as a mere *ossia* in the score, and is moreover referred to specifically as such in the editor's Preface, it is amazing to find that the Breitkopf parts give it exclusively, the normally accepted reading not appearing at all!

12. II. Letter Q: The editions vary here in several details of phrasing. In the first place the >'s, given in both Eul. and Sch. two bars before Q, are omitted by Br. On the other hand Br. supplies *marc.* and *molto tranquillo* 2 before and 2 after Q, not to be found in the other editions. In addition, in the Br. parts (though not in the score) the hairpin in the bar of Q is broken up into two as in the preceding bar (the omission of one of these in Eul. can only be a confusing misprint), thus missing the point of the gradually lengthening phrases.

13. II. Letter T: Another series of different phrasings. Breitkopf continues the long > in 1st Vls 4 before T in place of the *p* of the other editions, and adds *pp perdendo* to the last phrase of all, the *fermata* being held 'lang'. All editions agree with the odd lack of slurs in the 2nd bar of T onwards but this must surely be covered by the words *sempre legato*, the exact bowings being no doubt left to the player.

14. II. Letter V: The entry of the 'übrigen 1st Vls' is very much in doubt. Eulenburg clearly marks it in the bar of letter V, after a semiquaver rest. By ill fortune all other scores and the Breitkopf parts come to this bar at the end of a line or page, and as a result the entry appears on all three staves set out for 2nd, 3rd and 4th Solo violins, thus suggesting a double entry with the *tutti* playing only in the following bar. The Eulenburg seems more logical and may well be the only correct text.

15. II. 19 bars after Z: Both the Eulenburg and Breitkopf editors refer in their prefaces to the 12-bar interpolation at this point, given by Liszt in a letter to Dr. Friedrich Stade. But whereas Eul. incorporates the passage into the text, Br.

merely adds it in an appendix to the score, the parts omitting it altogether.

16. II. 13 bars before the end: Eulenburg marks this Coda *Un poco più lento*. Neither of the other scores has this and one wonders where Göhler found it! From the bar before the Common Time to the end, Br. and Sch. make all the violin lines solo parts while Eul. reserves this indication for the top part only. All editions agree on a solo cello, but none has any indication for the viola which must surely also be given to a single player!

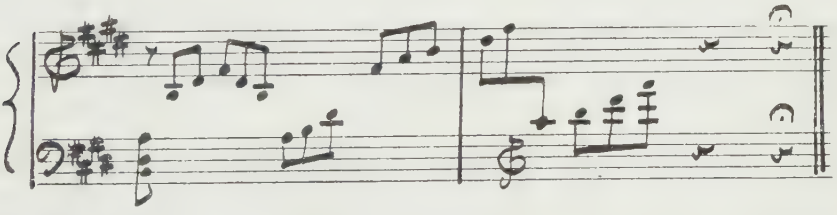
17. III. One bar before A: The string parts are none too clear here. The cellos must be *pizz.* though all scores and parts forget to say so. Also the 2nd Vls and Vlas have no new dynamic marking, so that the cellos are *p* like the woodwind whilst the upper strings remain at something above *forte*! To my mind the *pizz.* should surely be strong and hence the cellos should mark up rather than the others down.

18. III. 2 before K: In view of the many doubtful points not cleared up by the Breitkopf editor, it is curious that he singles out this place for detailed reference. There is no great likelihood that the E in the double basses is an error, since it recurs identically, not only two bars before L but also in the two corresponding places around KK and LL.

19. III. Letter S: Eul. and Sch. both print a composer's note unaccountably omitted from Br. It reads: 'Den Fugensatz in allen Streich-instrumenten sehr scharf markiert und abgestossen.'

20. III. 2-5 bars after X: Here is an important variant. During these four bars Breitkopf alone interpolates an essential thematic figure for flute and piccolo, as follows: . It is curious that this should receive no word of mention from either editor.

21 III. 3 before HH: Sch. and Eul. give the horn solo to the 2nd horn, Br. to the 3rd! At HH, however, comes another substantial variant of even greater scope and importance than that quoted in note 20 above. Breitkopf gives the accompaniment to Gretchen's melody not only to the clarinet but also to the harp, in an extended solo which, moreover, continues the clarinet's upward *arpeggio* for a further two octaves, *viz*:



Again neither Preface contains the slightest reference to this most interesting revision.

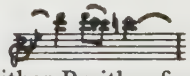
22. Choral Finale: 7 bars after F: From this Common Time until the 4/2, Breitkopf gives the whole flute part to two players in unison as against the long solo shown by both Schuberth and Eulenburg.

MOZART—SYMPHONY NO. 40 IN G MINOR, K.550

1. A fearful state of confusion reigns over the two versions of this Symphony. It is therefore a lasting shame that the editors of the Breitkopf *Gesamtausgabe* decided to economize by merely printing the altered oboe and new clarinet parts above

what they considered to be the original 'oboes only' version. Unfortunately their text is not reliable and in any case they have restored all the clarinet parts to the oboe, overlooking the fact that Mozart derived two of these in the *Andante* from the flute! A revised edition of the Eulenburg score edited, like all the later Mozart symphonies, by Theodor Kroyer is of the utmost interest. In a long Preface Kroyer carefully studies all the available editions and compares them with the autograph to which he had access. The corruptions and errors are for the most part listed in a *Revisionsbericht*, but unfortunately this is not comprehensive.

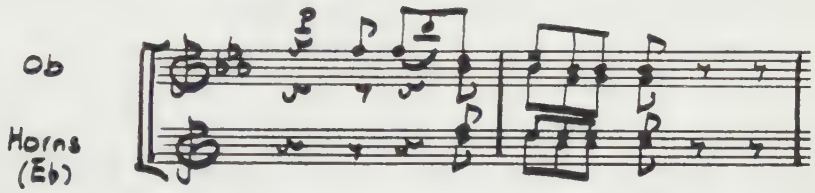
The original oboe version, with the variants ignored by Breitkopf faithfully observed, is to be found in the old Eulenburg miniature, in the Peters edition, and in an old octavo Breitkopf score to which reference will be made later. (It must be added at this point that Kroyer proves some of these variants to be wrong readings.) The Philharmonia gives only the clarinet version in the Breitkopf text as do the other more recent reprints in miniature score. Kroyer in his new Eulenburg score also gives the clarinet version though radically revised. Finally, it must be added that the Penguin score proves to be an extraordinary mixture of the two versions and quite impossible to use for practical purposes.

2. I. Bars 15/16: The oboe version separates the phrase: Breitkopf ties it over. The same happens in bars 178 ff.
3. Bars 34 *et seq.*: Br. omits the *sforzandi* in 1st and 2nd Vls, and again in bars 217 ff.
4. Bars 39 *et seq.*: The woodwind ties need careful comparison between the editions, as also in bars 115 ff. and 133 ff.
5. Bars 58 *et seq.*: Br. gives *pp* both here and in bar 241. This is in neither the oboe version nor Kroyer and can be presumed to be editing.
6. Bars 73/75: The minims in 1st Vls are most curious. They appear in all versions, but never recur and even here are not imitated by the lower strings. Unfortunately Kroyer makes no reference to this inconsistency which may have originated in some slip on the part of Mozart himself.
7. Bar 114: The position of the *f* in 1st Vls is given differently in every edition! Kroyer is unique in bringing it as far forward as the half bar. Presumably this is authentic, though he makes no comment.
8. Bars 136 *et seq.*: The *staccato* crotchets in the 1st Vls are extremely doubtful. All editions vary as to when and where they should occur and the Breitkopf edited parts simply add them throughout until bar 146. Yet nowhere else in the movement are these crotchets *staccato* in any edition, and indeed the character of the phrase and of the movement as a whole suggests that perhaps they should not appear here either.
9. Bar 161: The oboe version gives the Fl.  in keeping with the similarly chromatic bars, 162 and 164. Neither Breitkopf nor any of the clarinet versions have C sharp, however, and Kroyer cites the autograph as agreeing with this.
10. Bar 190: Here is a Kroyer special. The manuscript gives the flute part as follows:

The high F is not in any edition.

11. Bar 247: The 1st Vl turns read in the oboe version and in the clarinet.

12. Bars 293 *et seq.*: The 1st Vl ties are not in the oboe version but seem justified as they bring the passage into line with bars 95 ff.
13. II. The famous slur from the upbeat to the first of the repeated notes in this melody is not to be found in any score and has been proved incorrect by the autograph.
14. Bars 18/19: The oboe version gives the following variant to the oboes and horns:



Unfortunately Kroyer makes no comment on this interesting point.

15. Bars 20/22: The oboe version reads:

and similarly in all parallel places. In Breitkopf and the clarinet version scores, all string parts are marked *p* from the third quaver of the bar, which is the more curious in view of the sustained *f* of the newly added oboes. Once again this is clearly not a question of error but of variation between the two versions and as such wrongly omitted from Breitkopf's portmanteau edition.

16. Bars 27/28: This is the passage in which the clarinet part is derived from the flute and not from the oboe. The Breitkopf material needs to be corrected here and also at the equivalent place in bars 98/99. The Penguin score gets into a splendid muddle by giving the line to both clarinet and flute!
17. Bars 29/32: Kroyer refers in his substantial foreword to a rescoring of these four bars, with the demisemiquaver figures given entirely to strings. This version also reappears at the recapitulation in bars 100-103 and Kroyer goes to the length of giving the texts of these variants in full, a most valuable contribution. Although these bars are not given in any modern edition, they are to be found in the octavo Breitkopf score (Plate No. 4580) where they appear not instead of, but as well as, the version now recognized. In each case therefore the passages are 8 bars long, with a fearful jolt in the musical sense at the point where the 'string' version passes directly to the 'wind'. The strange thing is that although Kroyer acknowledges the octavo Breitkopf score (designating it 'C' in his notes) he makes no reference to this extraordinary mistake in his detailed *Revisionsbericht*, in which the features of each edition are generally given with such thoroughness.

18. Bar 30: Kroyer shows that the G flat in the bassoon is an error common to all editions. The manuscript gives G natural.

19. Bar 39: The oboe version gives: with the equivalent in bar 110. Kroyer cites the autograph in support of the acciaccatura G as given by Breitkopf and the clarinet version.

20. Bars 39 *et seq.*: The phrasing in all parts needs careful comparison between the different scores here and in the corresponding passage in bars 114 ff.

21. Bar 65: In the oboe version the 1st Vls remain *f* here and only change to *p* with the entry of the 2nd Vls. This is by no means unlikely. In the same bar the B for 2nd bassoon at the fourth quaver is an error, the Breitkopf G being the correct reading. On the other hand the *staccato* dots for the 2nd bassoon in bar 67 are very odd, though Kroyer adopts them. The oboe version merely gives a single slur for the bassoons, which shows exactly how the error might have originated.

22. III. The *tempo* indication of the *Menuetto* is given variously as *Allegro* or *Allegretto*. Even Kroyer hovers between the two, referring to the movement as *Allegro* in the *Revisionsbericht*, but heading the actual text *Allegretto*! Nor does he make any comment in his Preface on the existence of such a discrepancy. In general the oboe version gives *Allegro* and the clarinet version *Allegretto*.

23. There have been various ways of presenting this Minuet and Trio. I myself heard Richard Strauss bring the Trio round a second time as in Beethoven, while Frederick Stock recorded the movement with the second section of the minuet repeating at bar 36, thus making the wind passage into an epilogue. There are, however, no texts to support these interesting if eccentric readings.

24. Bar 13: Breitkopf gives various slurs and no dots; the oboe version no slurs and all dots! Unfortunately Breitkopf is not consistent and forgets the slur in the violas, which Kroyer supplies. The slurs need careful checking all through this movement, especially in the Trio.

25. Trio Bar 2: The oboe version rests the violas in this bar.

26. Trio Bar 5: One item of phrasing requires especial mention. The figure in 1st Vls and Violas is slurred in the oboe version but detached in Breitkopf. Oddly enough the Breitkopf edited parts restore the slur each time the figure occurs!

27. IV. It has become more and more the custom to write out Mozart's short repeats at the beginning of this movement. Even Breitkopf has now followed suit in the latest reprint of both score and parts. Normally this kind of practice seems to me entirely wrong, but since in the present instance it has become the rule rather than the exception, it is futile to protest! However, since the bar numbering varies as a result in different editions, the notes below will refer to the Breitkopf lettering.

28. 3 bars after letter A *et seq.*: The phrasing of the second subject varies considerably between the versions. See especially the last 6 bars before the *forte* at letter B.

29. Letter B: Breitkopf marks the violins *f* only at the second quaver. The oboe version gives the *f* at the barline as at letter G, and Kroyer confirms that this is correct.

30. 9 after letter C: The oboe version gives the 1st horn: . The autograph apparently proves this incorrect.

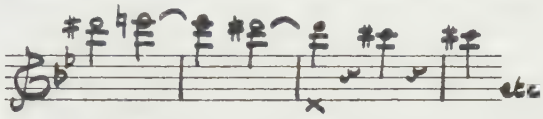
31. 14 after C: The oboe version gives the cellos and basses A♭ in this bar. Kroyer again agrees with the Br. A♮. The oboe version also has no viola slur either here or at 12 after C, and Kroyer agrees with Breitkopf but without comment. This is a pity as the slur is by no means the obviously correct reading.

32. 12 before D: Here is a very strange situation, for Mozart seems to have removed

the 2nd Oboe line: in rescoring the passage with clarinets. This was possibly to avoid the leap of a ninth to the following D (as shown), though there would have been no difficulty in execution.

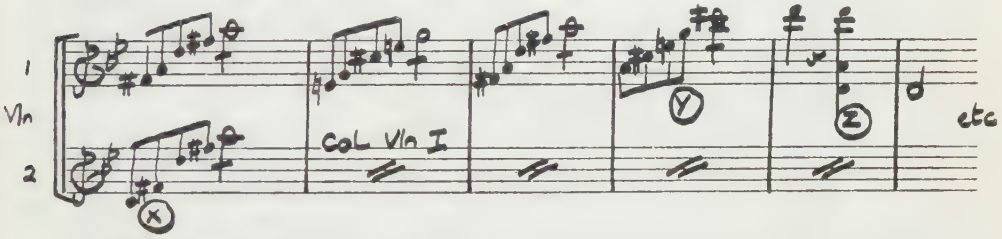
33. 4/5 after D: The G sharps for woodwind across the barlines are given *staccato* in Breitkopf but are tied in the oboe version. Kroyer makes no comment.

34. 11 after D: Another Kroyer special. The flute part should apparently read:



The amusing thing is that Kroyer is quite exceptionally scathing about the corrupt reading which has, however, remained uncorrected in the text of his own score! The oboe version keeps the bassoons in thirds throughout this passage, whereas to make better counterpoint Breitkopf changes the D sharp to F sharp, 9 bars after D.

35. 6 before F: The oboe version gives the 1st and 2nd Vls:



At x Kroyer shows that the F sharp is right as shown and the A given in Breitkopf wrong. At y the G shown is wrong and Breitkopf's correction to A stands. At z the middle note of the chord is D in Breitkopf but Kroyer makes no mention of this.

36. 8 after G: The oboe version gives the violins: Breitkopf changes the note marked x to B flat, bringing it into line with the passage after letter B. The woodwind phrasing during this whole section also needs comparison between the different scores.

37. 16 before the end: The rising scales are marked *staccato* in the oboe version. Not only are the dots not in Breitkopf but the wind parts are slurred. Kroyer makes no comment but brackets the wind slurs wherever the scales occur.

38. 3 before the end: Kroyer shows that the crotchet for 2nd oboe should be C not D. This is wrong in all editions.

RAVEL—DAPHNIS ET CHLOË

1. Fig. 155 (Beginning of 2nd Series of *Fragments Symphoniques*) Bar 2: The violas' *Div. en* 3 is very odd indeed. The more one studies it the more it is palpably *Div. en* 4 and this must certainly be a misprint. Unfortunately the parts have taken the direction at face value and have done their best with an impossible task! The result is that they give the divided upper part to the top line and the divided lower part a line apiece to the 2nd and 3rd lines. At the fourth bar, however, they abandon the unequal struggle and divide correctly '*en* 4' though the music is identical.

2. 2 bars after 156 *et seq.*: The harmonic on the 3rd Solo Vl must surely be C natural —i.e. sounding G two octaves above the open string. This has the advantage not only of being possible but of supplying a note in the prevailing harmony.
3. Fig. 175: The 1st Vl *pizzicato* chord should certainly be a 6/4 chord of C sharp. The sharp does not appear before the G in any score or part—a general misprint.
4. 3 bars after 176: Here is a famous query. The flute run up has an E sharp in the part though there is nothing of the kind in any score. It is impossible to establish beyond doubt which is right. The reading of the part is most attractive and corresponds with the return of this colourful note later in the solo. Perhaps it was inserted at some early rehearsal and thus never incorporated into the already published score.
5. Fig. 180: The indication ♩=♪ sometimes causes confusion. Ravel is reputed to have said that it is a misprint for ♪=♪. It all depends on the interpretation of the term 'précédente'. If this is taken to mean the bars immediately before, then twice as fast is ample and four times impossible! If on the other hand (and it is probable that this is what Ravel originally meant, whatever second thoughts he may have had later!) it refers to the basic tempo, *Très lent*, of the flute melody (Fig. 176 *et seq.*), then the new crotchet must certainly exactly equal the semiquaver of that section.
6. Fig. 182: Here is splendid confusion. The cor anglais must quite obviously read a semitone higher for the four bars on this page. One can only suppose that Ravel momentarily forgot that he had left this instrument with a key signature of 5 flats! On the following page all is well.
7. Fig. 193: The slurring of the trumpet line has been rather loosely carried out in the score where, however, the intention is clear. This is not true of the parts, however, where similar carelessness has more misleading results.
8. One bar before Fig. 205: The 1st and 2nd bassoons should certainly have G natural in this bar. The accidental is missing from both score and parts.
9. 6 bars before Fig. 210: The omission of the rising and falling hairpins in the strings and brass parts is serious in view of the different dynamic marking in woodwind and percussion, especially since the parts are unanimous in this misprint.

SCHOENBERG—KAMMERSYMPHONIE NO. 1, Op. 9

1. The problem of performing this work is made more complex through the difficulty of establishing the correct text. Schoenberg's instructions are immensely detailed but the details differ in every score and the parts are different again. What is so splendid is that all the scores are described in bold letters as *Verbesserte Ausgabe*. One can only assume that at every performance Schoenberg found new improvements and means of ensuring a true performance which he immediately put into the score, or into the parts if the score was not due for reprinting. As a result there is a note in the miniature score, probably the most 'Verbesserte Ausgabe' which can be obtained, to the effect that a large number of 'prescriptions' exist in the parts which are not to be found in the score, and this is indeed the truth. Where the note in the miniature goes astray, however, is when it says that although the interpretation marks to be found in the parts do not correspond with those in the score, they are nowhere actually contradictory to one another. On the contrary, in many places they are exactly that!

   It would be impossible and confusing to list every one of the endless tiny revisions and variations of phrasing to be found in the different editions. In the notes which follow, only the principal corrections will be referred to, and these will be dealt with on the assumption that the miniature score is the most

reliable and that no full score should be relied upon without careful checking.[1]

2. The diagram of the grouping of the 15 instruments varies from score to score; the miniature places the flute in the front row on the extreme left, the viola moving to a position immediately in front of the conductor.

3. Fig. 1: Schoenberg seems to have had many misgivings as to the speed at which it would be prudent to play the first movement, which is marked *sehr rasch*. Originally he thought of it in quick crotchets, although the conductor was instructed actually to beat minims. The miniature score then gives ♩= *ca.* 104 but this is mercifully changed in the parts to 88!

4. 2 bars after Fig. 4: The figure , at one time general, is changed gradually through the various editions to and by the last printings the latter version is practically universal. A few places still survive, however, where the two versions remain mixed. (See for example 3 and 5 bars after Fig. 33.)

5. Fig. 6: The parts give the tempo here as ♩= 72 changing to 69 at Fig. 11 and returning to 88 at Fig. 13.

6. Fig. 18: All scores give *etwas langsamer* at the barline, but from the musical sense the change of *tempo* should surely come only at the second crotchet of the bar. In addition the parts change the 'etwas' to 'viel'. A similar change in degree occurs at 21 where the miniature changes the *ein wenig langsamer* to *viel langsamer als.*, etc.

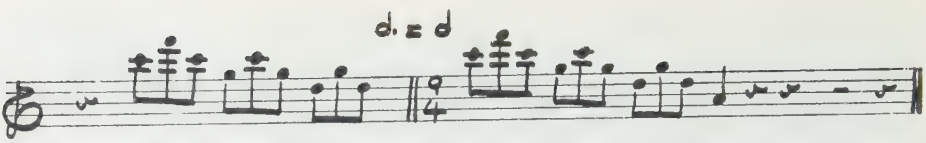
7. Numerous *tempo* indications occur in the parts from Fig. 27 onwards not to be found in any score: ♩= 72 at Fig. 27 itself, 80 at Fig. 30, *accel.* at 32, and 88 at the 1. *Zeitmass* at Fig. 33.

8. Fig. 46: The metronome marks between here and Fig. 60 can only be described as fantastic. Both Fig. 38 and Fig. 46 are headed *sehr rasch*, yet although minim is constantly given as equalling minim or crotchet equalling crotchet, at 38 the ♩. is only 92-96 whereas at 46 the minim has suddenly reached the incredible speed of 160! Moreover this is by no means the end of our troubles: at Fig. 48 the music is a little slower ('—not much!' adds Schoenberg hastily in parenthesis), after which we soon get gradually faster once more only to find ourselves at Fig. 50 with the minim equalling no more than 116! This is a mere brief respite, however, for at 52 we are suddenly once more tearing along on the borderline of possibility at ♩= *ca.* 160 with still faster passages shortly before us at Fig. 54 ff! If all this were at least consistent it would matter little that enthusiasm needs to be tempered with practical prudence if the passage is not to sound a mere scramble. But the sudden appearance of the ♩= 116 at Fig. 50 suggests that Schoenberg has erred somewhere, though it is not easy to establish exactly where or why.

9. 2 bars before 75: As the material reads, the 2nd horn is open during these next four bars while the 1st horn is specifically marked muted. Then at the *fortissimo* entry of the main theme both are marked open. At 75 where they move together it seems unlikely, to say the least, that one should be open and the other muted, and it seems to me that Schoenberg forgot that he had removed the mute of the 2nd horn, or else considered that the player would not have time to put it back before starting the new figure two before 75.

10. One bar before 76: The indication ♩.=♩ is sometimes held open to doubt on account of the woodwind notation (see overleaf):

[1] In view of the relatively recent version made of this work by Schoenberg for full orchestra (published in a reproduction of the composer's autograph by Schirmer) it is necessary to add that the further variants to be found in this have deliberately not been mentioned here since they arise through the exigencies of the new medium employed.



It is indeed remarkable to discover that the identical triplet quaver figures in the 9/4 bar go half again as fast as those in the preceding bar, and faulty readings have resulted from the misleading appearance of the score.

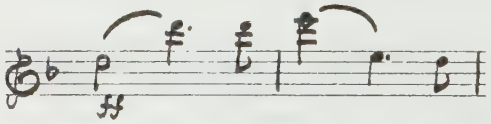
11. 3 bars after 95: In the full score this bar appears at the beginning of a new page and the E flat crotchet in the cor anglais is slurred back as if this instrument had been playing with the oboe for some time, as perhaps it once did in an earlier version. In the existing score, however, the cor anglais has nothing whatever on the last bar of the previous page and this initial E flat now looks somewhat unlikely! It has, though, survived (without its slur) into the miniature score, although the pages are naturally redistributed.

RICHARD STRAUSS—4 LAST SONGS

1. I. Frühling: 4 after B the 1st Flute's trill should surely be to E flat.
2. II. *September:* 2 after B: The 3rd and 4th horns are certainly not pitched in D as marked! There have been various attempts at making sense of the harmony, including the removal of the change to bass clef, a very dubious remedy. In fact, if the horns remain in the bass clef as marked but change to horns in B flat they will then be in unison with the basses, the obvious solution. How the error arose is somewhat mysterious. In any case they revert to Horns in D with the restoration of the treble clef at letter C.
3. III. *Beim Schlafengehn*: 2 before H: the C flat in the 1st horn is decidedly weird. As before, various attempts have been made at retransposing the instrument, but this time the correct harmony is restored simply by removing the accidental.
4. IV. *Im Abendrot:* 4 after F: The timpani part is at fault here and it is not even certain whether there should be anything for it to play in this bar. The isolated B flat looks suspiciously like a left-over from the end of the roll in the previous bar. If its existence is accepted, then the decision has to be taken as to where the missing rest should be restored—after the note, as the player's part would suggest, or before it as the position of the note in the score indicates.

WAGNER—EINE FAUST-OUVERTURE

1. Bar 58: Here is an instance of a major textual problem to which no conclusive solution can be given. The original Breitkopf material reads:



in all melodic instruments. On the other hand every other statement of this principal subject gives the semitone rise (to E flat) which is its strongest characteristic. Opinions differ as to whether the omission of the flat here is a mere slip on Wagner's part or a masterstroke of additional emphasis! The nearest equivalent place is in bar 320 where the note is indeed E flat, but the setting is not identical and moreover the harmony has no delayed retardations as here. The Eulenburg miniature actually goes so far as to add the flats under the authority of Professor Ernst Praetorius who in 1934 edited the revised printing, though without a *Revisionsbericht* to substantiate his decision. The case is by no means proved and many conductors prefer the variety and strength of the whole tone step.

TWO MONTHS IN THE 'STUDIO DI FONOLOGIA'

Marc Wilkinson

About three years ago, the R.A.I. in Milan set aside two rooms and an office, and installed a great deal of electronic equipment to be used by composers for musical purposes. The premises are now known as the *Studio di Fonologia.* I was invited to go there and work, and learn the techniques of composing electronic music. I arrived on a Monday in September to find all in turmoil—for Monday is upkeep day, all the apparatus is opened up to be oiled and cleaned, and checked with standard tests to ensure the greatest possible accuracy and lack of distortion. Luciano Berio, who is in charge of the studio, was out at the time, so I introduced myself to the technical engineer, Marino Zuccheri (who is also a painter, and is wildly enthusiastic about the activities and the music in the studio), and we talked while he continued his repairs on a tape recorder. When Berio returned I went into the office with him, and we discussed my programme of work (which was left entirely to my pleasure). I had planned in fact simply to learn all I could in two months, and hoped to come out in the end with a piece of music or an interesting exercise. I assured Berio that I had read a large number of articles on electronic composition and studios, and therefore was not arriving completely unlettered. I had an idea for a piece, which later turned out to be very silly and primitive. I also discovered that, though the articles had assured me I would have at hand in the studio a complete flexibility within the auditive ranges of all the elements of music (pitch, duration and rhythm, dynamics, *timbre*, speed, spatial effects, etc.), I was still very far from realizing how terrifying and wonderful this in reality can be. Nor did I imagine how difficult it would be for me to set aside as not pertinent my knowledge of instrumental writing techniques, to stop thinking of pitch as a slightly more basic element of music than, say, *timbre* or real duration; or simply to place the concepts of metrics and ametrics in their proper perspective. That is to say, not to accept either of them as superior, necessary, or undesirable, but to consider metre, in any form, as one set of practical possibilities amongst a great number of others. I found that I had to think over anew every technical aspect of music, and the strain of doing so and of assimilating my new knowledge, while learning the studio techniques necessary for the production of music electronically, was very great. On the other hand, the new references and ideas which I gained from the study are just as applicable to instrumental music as to electronic.

My first two weeks were spent in trying out the electronic installations and listening to the sounds produced. I shall not try to describe the sounds or the more complex manipulations of the equipment, however, for this is not a technical article. My first experiment was in the creation of *timbres* and of pitch complexes with varying numbers

of sine tones,[1] which were produced as needed by one or more of the nine sine tone generators on the instrument board. When I needed more than nine sine tones in a group, of course, we would record the first nine frequencies on tape (regulating dynamics beforehand), and superpose others later until the full number was reached. My first great surprise was to hear the differentiation made possible within a single superposition of sine tones by even the smallest rearrangement of the relative levels of loudness of the component frequencies. The variations may range from extreme subtlety to a degree past recognition, of *timbre* or pitch. There should have been no surprise, however, since the difference in *timbre* between, say, a flute and an oboe, is also due to a very slight variance of dynamic relation within the harmonic spectral complex of overtones (sine tones), all transient characteristics apart.

I worked also with the white noise generator,[2] filtering[3] the noise to get specific areas of sound and approximations of pitch, adding attacks and *glissandi*, superposing areas of filtered noise upon each other, with different dynamic relations producing new types of *timbres*, and so forth. One of the most rewarding of my first experiments was to pass some filtered band of white noise through the ring modulator[4] against a single sine tone, at various frequencies. Some of the effects were entirely lovely, others merely unpredictable. In all cases the original signals[5] were lost, but they were replaced by another signal, or two or three other quite distinct and definable complexes of sound, the relative importance and character of which depended partly on the relation of dynamics between the two original signals. One can feed only two signals at a time into a ring modulator, but since these signals can be simple, or as complex as can be imagined, one soon realizes that the number of possible encounters is limitless. On the other hand, if care is not used in choosing two *complex* signals, the effects produced tend to be over-rich, or more precisely, indefinable or even indistinguishable in the long run. It will be seen that, particularly with the help of the ring modulator, one can produce an approximation to white noise simply by super-

[1] Sine Tone: A single, pure cycle frequency of even dynamic level. For the purpose of this article I shall use the simple term 'frequency' as meaning cycle frequency or sine tone.

[2] White Noise: A statistical, total distribution of all audible frequencies at the same time. In fact, no frequency ever remains at an even dynamic level but is in a continuous state of flux. For this reason, the ear hears a kind of evenly distributed motion within the total sound.

[3] Filters: There are two kinds of filters at the Milan studio: (a) Octave and third-of-octave filters, which will cut off all frequencies that appear outside a given interval, or, if required, within the interval; (b) There is also a less precise 'Pass Band' filter, which is a two-directional graded filter. It should be understood of course that a filtered white noise is still a 'thick' sound. Only its range has been restricted.

[4] Ring Modulator: When two signals are fed into a ring modulator, this machine produces all the resultants of subtraction and addition. For example, if one feeds input A of the ring modulator the frequencies 300 and 400 f/s and feeds input B the frequencies 500 f/s and 600 f/s, the resultants will be:

500−300 (200 f/s), 500−400 (100 f/s)
600−300 (300 f/s), 600−400 (200 f/s)
500+300 (800 f/s), 500+400 (900 f/s)
600+300 (900 f/s), 600+400 (1000 f/s)

[5] Signal: By this I mean any sound or sounds originating from a single electronic source, such as a one-track magnetic tape.

posing a great many sine tones one upon the other.[6] It is also possible to approximate to a sine tone starting from white noise, by filtering more and more. There is in the studio a filter which eliminates all the frequencies of white noise except a chosen one.[7] All frequencies of white noise being aleatory, however, and therefore in a state of constant and quite rapid flux of dynamics, the filtered signal is also aleatory, and in this differs from a real sine tone. The sine tone generator and the white noise generator are the only true producers of sound necessary in a studio, and with these two it is quite possible, though not always easy, to produce any sound imaginable.

Amongst the other electronic or semi-electronic machines, such as wave generators, variable tape speed controls, the *Telefonbau Normalzeit*,[8] and the echo chamber, is one which was invented by Doctor Lietti, who planned and installed the equipment of the Studio. This device, a dynamic suppressor, cuts out all signals below a certain chosen volume level (this level is measured by the machine in electrical energy, and is controlled by the composer, to suit his purpose, by a little knob on the panel). The machine is extraordinarily useful for a multitude of purposes, and also brings to the fore the problem of *chance* (whether controlled, or only partially controlled, or not at all) which, both functionally and effectively, can be used in composing electronically. As an example, here is a very simple experimental exercise which I did at the beginning of my stay in Milan: I first chose a specific aleatory frequency (filtered from white noise). This frequency I passed through the dynamic suppressor, and turned the control knob in such a way that the peak dynamics were allowed through the machine (then to be re-amplified to make them more sparkling and clear) while the lower dynamics were of course automatically eliminated. I could not have done this with a pure sine tone, since, its dynamic level being static, the dynamic suppressor would have let everything pass, or nothing. The dynamic fluctuation of an aleatory tone is completely unpredictable, so I was automatically (or electronically) producing a rhythmic span (both ametric and non-cyclic) with sounds of varied duration—some long, some very short—and equally variable lengths of silence, all on a single chosen pitch or frequency; but I had no control whatsoever over the result except in setting the control knob of the dynamic suppressor. Having chosen the frequency, and the position of the control knob, we set a tape recorder going and recorded about five minutes of the resulting rhythmic patterns, which, I should imagine, could have gone on forever without an exact repetition. I repeated this process with four or five other frequencies, superposing these (each with new rhythmic patterns and characteristics) on to the recording of the first frequency. I then repeated this whole process over again, with six other frequencies, on to a second tape. And finally I passed both tapes, simultaneously, through the ring modulator.

[6] This is a simplification, and the statement would require a great deal of amplification in a more technical study.

[7] In fact, the frequencies immediately above and below (one on each side) also creep through the filter, but the ear does not distinguish them from the central frequency.

[8] *Telefonbau Normalzeit:* This machine changes the speed of rhythmic passage without altering pitch on a tape recording (see footnote 10).

On each tape, therefore, were six fixed frequencies, all articulated by quite independent improvisations of chance. Pitches appeared sometimes by themselves, sometimes with one or more of the others. When both tapes were played simultaneously through the ring modulator, a far more complex situation arose: if one or more frequencies were sounded from one tape while the other tape was silent, then this signal (simple or complex) was heard unchanged through the loudspeaker. If, on the other hand, both tapes had a signal at the same time, then the ring modulator did its work, and the resultant signal was a completely new sound, of new pitch, *timbre*, dynamic level, and sometimes of duration. When one considers the number of possible encounters between the six frequencies on either tape, whether singly or in groups, one realizes that with this extremely simple procedure a fantastic variety of sounds and rhythmic patterns were already produced. Having made this five-minute material, I chose the bits which pleased me and which I felt I could use, discarded the rest, and made a very short little improvisation. Had I wished to do so, I could have measured the exact duration of each frequency (in centimetres, on the magnetic tape), as well as each silence to be found on any part of my three tapes, and used the rhythmic relations for development purposes in a composed work. And again, the results were not bad a little later in the day when I ran the recording of my complex material through the dynamic suppressor a second time, thus eliminating all the single frequencies, or simple complexes of frequencies, and retaining only the products of the ring modulator. It is quite obvious that one must not count on the element of chance to compose; but, when controlled, and when the product of chance is thought of merely as a means of providing a material with which to compose (a material that can be discarded at will, or re-moulded according to the exigencies of the work), this element can be most fruitful. It must always be remembered that in order to make a material, the composer is not only in a position where he can actually listen to what he is doing, but is more or less obliged to do so by the very means at his disposal. This allows him to alter freely, to improvise, to choose between possibilities, and to check what he is doing at every moment. Certainly at no time has the ear been more immediately the composer's guide.

The oscilloscope can be used for a number of purposes. Firstly, it measures intervals between frequencies when these are in any relationship found within the 'harmonic series'. But it can also be used as an impulse generator: that is, it supplies a sharp 'attack' impulse (known in Milan as 'tock') by means of a process hardly within the confines of this article. The impulse can be embedded into any frequency or complex signal, at any moment of a signal's duration. The impulses are generated metrically, at any speed desired from about two per second right up and into the 'pitch' frequencies. Luciano Berio uses this interrelation of time (duration) and pitch with breathtaking effect in his latest electronic work, *Perspectives*. In this work he constructs four vertical complexes, each with many sine tones, and every sine tone is modulated by a specific and individual 'durational' speed of impulse (the sounds are only heard at the moment of impulse, in this case). These speeds are then altered according to a carefully studied plan, going faster and faster. Of course, when the speed of impulse is greater than, say, fifty to the second, the original frequency is no longer modulated by impulses in time, but by a new, and very real, pitch frequency.

In *Perspectives* the result is hallucinating, for during the course of the piece there is a continual and truly integral mutation of the pitch and durational materials, which at times Berio emphasizes to the point of disintegrating his basic frequency complexes (columns, as he calls them), or at other times withholds.

During these first two weeks of elementary training, I often listened to the electronic music which is kept on tape in Milan. Some works proved to be no problem to me at all, others, such as *Perspectives* or Bruno Maderna's *Syntaxis*, took me a little longer to grasp, for they are not only complex but also truly thought and composed in full conscience of electronic resources. For though a listener need not know electronic techniques to enjoy the music, he must all the same, and quite naturally, make some readjustments in his manner of listening. I felt, however, that I was taking my first great step into the new domain when I finally got to feel and understand Henri Pousseur's *Scambi*, which he composed in Milan last year. This work is perhaps the most radically 'non-instrumental' and unconventional as yet produced. The sounds are all moulded from white noise, which is to say that 'pitch' is never more than approximate: one can better speak of 'levels'. Rhythmically also the work is 'imprecise'; one is not expected to hear the details within a durational span except occasionally, changingly; one rather hears general motions, general speeds or changes of speeds, with sudden breaks, attacks, and so forth. The whole work in all its aspects and elements is 'imprecise' in this sense, and, be it said, of relatively primitive construction and means. But Pousseur composed in this way for a purpose and his work is not unsuccessful, by a long way. It has sixteen sections, each lasting either 40 or 50 seconds, and each with its 'double' (in the classical sense). These sections may be superposed on each other, rearranged in order, turned back to front, in any way that is desired by anybody who wants to play the game. Sixteen sections exactly must be used, though never both variants of the same section in the same 'arrangement'. I listened to all the sections a great number of times and during my second week I made two arrangements. The first was very poor, the second good. I enjoyed myself immensely while making them. One gets to know the contents of the music very much as if one were practising an instrumental composition, and then one improvises and rearranges according to one's own feelings of structuralization, *timbre* relations, and so forth. Each new version brings with it quite new sounds, and brings out new perspectives in the material, for when electronically-produced sounds are made in such a fashion as to blend, they can do so with startling effect. Berio made two versions of *Scambi* while I was at the R.A.I., the second of which is excellent, and altogether different from either of Pousseur's two versions, or my own. Pousseur's reasons for making this particular kind of material and organization become completely clear when one 'arranges' his composition, and the pleasure derived from the 'arrangement' as well as (in some cases) from the finished product, more than justifies his idea.

At this time, having worked and listened for a while, I decided to make my first 'study'. To do so I chose six sine tones and used them alone, or as complexes, while continually changing the dynamic relations and ring-modulating them according to a composed plan. The study, after a lot of work, was quite attractive. And, except for some particularities of *timbre* and pitch, it sounded 'instrumental'. A bout

of musical analysis and self-criticism left me very gloomy, but with a dawning realization. I had not controlled my *timbre* constructions so that there would be an inter-relationship between homogeneous and discontinuous elements, and the limit I had set myself, that of starting with six frequencies only, was entirely insufficient. For the six frequencies had in no time demultiplied into such a vast number that I was left with a limitless material on my hands. To counteract this fault, I made a second attempt, starting anew after much thought and paper work, but limiting the qualities and not the quantities in the material. This proved to be obviously the right step to take, but even so only one section of the '2nd study' was at all good: this I obtained finally by the use of the echo chamber. I had a passage of some fifteen seconds in which all the much-dispersed frequencies and complexes previously used unrolled in a kind of ametric *ostinato*. These I sent through the echo chamber and recorded. I then reversed the tape and repeated the process, so adding a backward echo to the beginning of each sound. Finally, I repeated the original process, by which time the actual 'attacked' sounds had dissolved into the general echo, and instead I had a completely homogeneous, multi-dimensional and ever-changing total sound in which staticity and definition of time and state were entirely banned. Unfortunately, the later parts of this study, though uproariously funny, were miscalculated and accidental. The whole thing was relegated to the R.A.I. files of background music, possibly to be used on some light programme. A further exercise, using the previous basic material, turned out rather better, and it was from this third study that I finally chose to make a long and extremely rich material with which to compose a piece.

Rather than describe the process of organization, of material building, and of composition which I used, I think it may be more worthwhile to discuss the functions of the pre-compositional electronic musical 'material'. As I have pointed out already, the theoretically infinite gradient of all the parameters in music, limited only by the human ear, makes it imperative for the composer to set his own limits. For example, it is quite possible to generate any audible frequency or fraction thereof (say, 440$\frac{1}{8}$ f/s) from the sine-tone generator,[9] while the volume controls permit a graded change from inaudibly soft to the level of pain; and so forth for all parameters. If, as I myself did at the beginning, the composer sets himself an artificial limit, for example the choice of six sine tones to build the 'material' or the composition, in no time at all he will have an uncontrollably large number of sine tones with no particular functional inter-relationship, if he uses the ring modulator and the variable tape speed control.[10] In fact, such choices impose no limit at all, though they can serve as references, or compositional relations, for final organization. Limits can far better be achieved by deciding which electronic machines will be used, and in what way: by doing this the composer can assure himself a relation of *timbres*, frequencies, and all other elements, a veritable synthesis in fact. Of course, he must also have a valid and imaginative plan of composition and pre-composition, as always.

[9] The human ear being what it is, it is useless to talk of changes of $\frac{1}{8}$th frequency, or any equivalent super-subtle variation. The ear does not and cannot hear them. Still they are possible, and occur continually.

[10] By changing the speed of the tape, and so speeding the rhythmic motion, the frequencies of the tape are also altered, up or down as the case may be, unless the *Telefonbau Normalzeit* is used.

Let us consider the 'material' of an instrumental composer: before starting a piece he must decide on a number of limiting factors (whether they are traditional ones or not), so that he can compose and give unity to his work. Since mechanical-acoustical instruments are all equipped with their own particular built-in *timbres*, his choice of any instrument is in itself a limiting factor. If he chooses, say, to write for woodwind quintet, he is limiting himself immensely: there is no reason (except choice) not to write for six motor horns in quarter-tones and fifty potted palms with wind machines (though I have my doubts as to the value and manageability of such a material). If he also chooses to write in a tempered chromatic scale, his auditive limits are again narrowed, and if he writes tonally, or dodecaphonically, he creates yet another set of limits within much larger probabilities of occurrence. These limits are, to instrumental writing, what the 'material' is to electronic writing, and both are necessary. Rhythm in electronic 'material' presents another analogy: for the 'material' can consist of signals without any fixed durations, which will be cut to size during the compositional process, or it can have small built-in rhythmic motions (as in Berio's *Perspectives*, or my *Improvisation K*). The choice of a material which contains rhythmic relations can be compared to the tonal composer's choice of using metre as a basis for his rhythmic relations. But when an instrumental composer decides to compose tonally, in metric pulse, for a woodwind quintet, and using only those pitches which belong to the tempered chromatic scale, his limits are of a homogeneous nature; one limit, up to a point, suggests the other. As long as he stays within the limit of his stylistic implications, he need not fear that the other limits will be insufficient. To have an equal assurance, the electronic composer must usually compose with an already auditive material (recorded) and confine himself to the implications he chose to include in it; for each electronic machine in the studio, unless used with the greatest care, is otherwise likely to upset his chosen compositional limits, since these are not inherent in the machine's theoretically limitless capacities.

The material made, the composer organizes it as he wishes, copying it (again, on tape), cutting it and giving it shape. He controls dynamics and speeds of motion, mixes, superposes, and rearranges, and in fact composes as always within the framework of his ideas and the technical means at hand: means in which mechanical limits no longer affect the music. The process of cutting and sticking tape to make order and composition is tedious, but no more so than music copying. And at all times the composer is in actual physical contact with the sounds and constructions he is creating. No greater gift could be given him.

Electronic music is music produced by relatively new means. If, to some, these means imply new stylistic orders, new points of reference, this need not stop others from using a quite traditional tonal style electronically. Such a style would merely be a very eccentric choice, and an illogical one. For when well used, stylistic and technical limits other than tonal sound so forcefully right, that they are used constantly even for electronic 'light' music and background music at the R.A.I. No one has as yet complained, and the programmes have not lost their listeners.

The one quality of instrumental music which cannot exist in electronic music is the excitement of the performer's presence. In some cases this could hardly be termed a loss, yet in concert performance it does satisfy an additional psychological desire

for movement and surprise in the listener. The listener, however, can replace this loss to some extent by 'performing', so to speak, the act of hearing. In good conditions, surrounded by a stereophony of sound projectors, his mind will automatically concentrate on different sets of projectors in turn. Each 'performance' of the work will bring new visions, for the mind will almost certainly rearrange the sequence of its concentration in space; for that matter, the listener can 'interpret' the music by moving about within the confines of the stereophony during performance, thereby consciously creating states of imbalance between the component constructions in sound simultaneously projected from the different spatial origins. In time, he may come to prefer certain 'interpretations' to others, and codify his listening areas! Be that as it may, performance as such is lost electronically (just as it is lost when an instrumental work is heard on a record), and 'listener interpretation' of the type I have just suggested does not really replace it. Hearing electronic music is analogous to seeing a painting: one can vary the type of 'light', the 'angle of vision' and the distance of projection, and a change in any factor will bring new information and fresh sensations to the viewer. But there is no possibility or necessity of performance.

I have never heard anybody suggest that electronic music is better than any other kind of music. And though a new and immensely wider range of possibilities is offered by electronics, the effects of which are certain to be felt and appreciated, the suggestion would be a silly one. New styles and techniques will evolve not to replace, but to complement, the older ones. For passages of intricate complexity can be created electronically with very little more technical difficulty than simple ones, though the composer must of course work harder for true complexity. Stereophony makes it possible to achieve extraordinary effects of variation in simplicity, whilst hitherto unheard-of musical complexities can be clearly projected and assimilated.[11]

The means have now been given composers to free themselves of mechanistic shackles and of the limitations, born of another age and philosophy, which are expressed in the mechanical instruments at our command. The musician can now produce works that are related to the developments in thought, logic, science, and philosophy which have won such complete acceptance over the last fifty years. He can compose works in which all the elements of music are bound by an inner organizational meaning and a common structuralization, as well as create musical structures that are truly a 'synthesis in relativity'. And though every work requires its own set of limitations of style and material, the composer can approach each new piece with a completely open mind, choosing freely from the entire and unrestricted range of musical possibilities.

[11] According to a letter I have recently received, the Philips Electrical Co.'s pavilion at the Brussels World Fair, which has been designed by Le Corbusier, will have over four hundred sources of sound, to project from every direction the electronic music at present being composed by Edgar Varèse.

DENT

J. B. Trend

On his 81st birthday Dent made a very curious remark. Conversation with him had become like conversation with Beethoven: one had to write everything down in a *Konversationsheft;* but he took one aback by demanding: 'Are you going to write your autobiography?' To an emphatic *No!* he went on: 'Bismarck always said . . . that life only began when one got to a University . . .' So one may pass over family and psychological influences: the rather dominating, possessive mother from whom Dent had to escape, and the Yorkshire squire of Quaker origins, chairman of committees, who admired his youngest son above all the others because he alone had paid for his education by winning scholarships. He died just when that son could begin to treat him as a friend.

At Cambridge, a scholar of King's, Dent neglected his classical studies and gave every moment to music. He read every scrap of music he could get hold of, not only silently but by playing it on one (or two) pianos or the organ, or by singing bass in choruses; absorbing everything from Bach and Beethoven to Brahms and Dvořák, Wagner, Humperdinck and Tchaikovsky. (Remember this is 1897!) He would attend three or four College chapel services a day—entirely for the music: 'Daddy' Mann at King's, Alan Gray at Trinity, or Hugh Allen at Christ's with his pioneering practices of Bach cantatas. He also conducted a village choral society at Melbourn, four stations up the line to King's Cross; and all the time he was composing, deeply occupied with problems of form and expression, doing counterpoint exercises for Charles Wood and attending Stanford's weekly lectures on Beethoven's last quartets. He was often the only pupil present, the only one who could stand up to Stanford's sharp tongue. Dent himself was said later on to have a sharp tongue: 'the kindest heart and the bitterest tongue in Cambridge'; but Stanford's heart, though warm and passionate, was not kind. He loved to snub a pupil; but Dent declared that he was always right: 'He said I should be better at translating operas than at composition, and I have been.' Yet his *Serenade in F* for small orchestra had some success, and was even performed at Osborne by Queen Victoria's private band; and his delicate, Fauré-like songs were popular—in Cambridge—until the arrival of Denis Browne and Armstrong Gibbs ten years later. Denis Browne's *Arabia*, with its hints of polytonality, belonged to a new world; but Dent still occasionally wrote songs, down to 1918. He would have liked, he said once, to be 'an English Fauré'.

2.

What turned him over to 'bibliography'? (The word 'musicology' had not yet been invented.) The immediate cause was the idea that he might work for a Fellow-

ship, and he was duly elected in 1902. Stanford had suggested Leonardo Leo and the lesser Italians; Barclay Squire at the British Museum was helpful and encouraging; someone (Charles Lloyd at Eton?) proposed a thematic catalogue of the chamber cantatas of Alessandro Scarlatti. In the end his dissertation consisted of a composition, a setting of the choruses from Shelley's *Hellas*—finished hurriedly and handed in while the ink was scarcely dry—and a first-rate piece of research, *Alessandro Scarlatti: his Life and Works*.

He had been going abroad in vacations—how easy it was then! No passports, security-measures or travel-allowances!—listening to opera. Bayreuth, of course. But his first note-book on opera was begun in 1899 when he spent the winter in Dresden, learning German thoroughly and going to the opera every night, with long walks in the country in the afternoons. There was also eighteenth century church-music in the style of Haydn and Mozart, with trumpets and drums, at the Court Church; he remembered standing all through the long performances in wet, snow-soaked shoes, for the joy of hearing something like a *Credo* which went all the way up the scale with a little turn at the top.

He was still composing; but Scarlatti meant serious work of another kind, first at the British Museum, the Fitzwilliam Museum and the Royal College of Music, and then travelling round the music-libraries of Germany, Italy and Sicily. Most were friendly; but some were neglected, and others had a rule against copying music which Dent got round by writing his musical examples in tonic sol-fa. Above all, research meant making friends and becoming fluent in languages. Scarlatti led to comic opera in dialect, and Dent acquired a knowledge of Italian dialects such as few Italian scholars in this country have possessed. The implications of dubious passages in the patter-songs of the Neapolitan composer Logroscino were explained one day by a librarian in Holy Orders. Dent also read Venetian in the plays of Goldoni, Bolognese in the comic sonnets of the University landlady, 'Sgnera Cattareina', as well as the sixteenth century chapbooks of Giulio Cesare Croce which point the way to the *Commedia dell' arte* and the strange set of madrigals in different dialects, the *Amfiparnasso*. Further, the technique of research included an immense card-index; you had to make a card-index at least once in your life, Dent told pupils, to be really good at anything.

The Fellowship provided further means of travel, and Dent was abroad again for walking tours in Italy, and in the Cevennes—not with a donkey, like Robert Louis Stevenson, but doing exercises in modal counterpoint. He was back at Cambridge for the Milton Tercentenary in 1908. There was a performance of *Comus*; and since it was Milton who was being commemorated and not Henry Lawes or Dr. Arne, the original music by Henry and William Lawes was arranged so as not to interfere with Milton's text. There were also a few folk-dances, and courtly measures from the Elizabethan Virginal Books, at that time almost unknown and never performed, which Dent scored and provided with inner parts. He was amused, and then interested, by a shy undergraduate of Milton's College—not a student of music—who had nevertheless written down from memory a 'pavane' danced during the performance. After the observation that it was not a pavane but an almain, and that 'Your hymn-book harmony is very odd', the episode led to a lifelong friendship.

Virginal music was used again in the earlier productions of the Cambridge Marlowe Society. Dent tracked down and introduced into the performance nearly all the tunes mentioned by name in *The Knight of the Burning Pestle;* while Ben Jonson's *Silent Woman* and Marlowe's *Tragicall History of Dr. Faustus* were made memorable through Dent's incidental music for them.

3.

The change from composition to history and criticism was due not only to the discovery that there was something he would do better, something that was already giving him a European reputation. The recovery of Elizabethan and Jacobean music, the revival of madrigals, the influence of the folksong movement had all come to unsettle the foundations of music from Bach to Brahms, in England. The winds were blowing most strongly from France, where there had been a musical revolution. Debussy had arrived, and by 1908 was in full swing at Cambridge. 'If that's the music of the future, I'm glad I shan't be there to hear it', an old and crusted Brahmsian remarked; but Debussy triumphed through the charm and brilliance of Denis Browne's playing of the *Estampes* and *Images* and the *Suite pour le piano* which caused the outburst quoted above.

Dent frankly admitted that he could not compose like that, though he studied the works of the new French school and startled people by declaring—quite rightly, as it turned out—that Debussy was the opposite of Ravel. In 1908 he began a string quartet; but though the parts 'swore horribly', the result was not the least like the 'music of the future' and he only finished one movement. He conducted the first Cambridge performance of Debussy's *Danse sacrée et danse profane* with the harp part played on the piano by Denis Browne; but the audience was mystified, and the only thing to show when the sacred ended and the profane began was the slight shiver which they noticed running down the conductor's back.

Dent, however, was fascinated by Satie, though he showed musical people who came to his house that the French genius was capable of other things: Berlioz, for instance, of whom he had the complete edition and whose lovely orchestral songs, *Nuits d'été*, he demonstrated one summer evening to a Harvard professor and a Cambridge undergraduate. Another day one would find him playing, and explaining, Saint-Saëns' ballad, *La fiancée du timbalier*, or the songs of Gounod in which he pointed out 'the diabolical ingenuity with which he invariably gets the musical climax at the climax of the poem'.

There were, on a top shelf, some red cardboard boxes labelled 'Mozart'. Dent said that he had been collecting materials for years; he had first been made aware of Mozart by Oscar Browning in King's, who got undergraduates and other visitors to try out symphonies and piano concertos with the wind-parts played on indescribable instruments called 'O.B.—ophones'. A more penetrating experience was produced by the performances conducted in Munich by Richard Strauss. These impressions crystallized in the performance of *The Magic Flute* at Cambridge in 1911, with a new translation which for the first time made sense of the libretto by bringing out the Masonic symbolism. The next production was to have been Purcell's *Fairy*

Queen; for, along with the revival of Elizabethan and Jacobean music for the performances of the Marlowe Society, had gone the recovery of Purcell. *Full fathom five*, first heard in its original form from Dent, has remained one of the great musical revelations of a lifetime. The *Airs for the Theatre* had just been published, in three folio volumes of the complete edition; but Dent's view of learning and research—new before the 1914 war—was that the results should be printed in accessible editions and performed, and he revised some of the *Airs for the Theatre* to accompany a memorable Marlowe production of *Richard II*. The funeral music for the King was part of what Purcell had written for the funeral of Queen Mary in 1695 and afterwards played at his own, including the canzona for 'flatt trumpets' (trombones?) originally discovered by Barclay Squire but recently revived on the Third Programme as a surprising piece of 'unknown' Purcell.

4.

The 1914 war destroyed everything. The 'music, friendship, laughter' of *The Magic Flute* could never be the same again. Denis Browne and others did not come back; but Dent, after being made to stand naked on a small mat through several medical examinations, was finally passed as unfit (he was 40 at the time) and released to write hundreds of letters to those of his friends in uniform who survived. The moral courage, not only of combatants but also of conscientious objectors, brought to mind his Quaker ancestors and the 'strongholds' of their faith. Dent had the fearless intellectual honesty, the absolute truthfulness, the obligation to help others, which are characteristic of the Friends; but he could not enter into the ultimate Quaker stronghold of belief. From his earliest youth he had been a confirmed agnostic—and not a 'reverent' one, as Gilbert Murray is rather doubtfully said to have been. Indeed, he was often startlingly Voltairean; and his greatest spiritual experiences (he said) had been *Fidelio* and *The Magic Flute*. Like Bertrand Russell and Lytton Strachey he was probably not against all wars in all circumstances; he was against '*this* war'. He began writing regularly for *The Cambridge Magazine*, edited by C. K. Ogden, known afterwards as the inventor of Basic English. He often said that it was having to turn out articles for Ogden against time and fill in with editorial notes—he was sometimes the mythical 'Adelyne More' of Ogden's staff—that taught him the technique of writing concert-notices. Ogden also introduced the practice—jealously taken up by Government Departments, if not originally invented by them—of giving an abstract of the foreign press, with literal translations of paragraphs revealing points of view inconvenient to the authorities or suppressed by them. Dent had charge of Italy.

5.

When the Armistice came—a year too late, it was said in some quarters—the Diaghileff Ballet returned and the Old Vic blossomed out into a more ambitious season than it had ever had before. Dent afterwards described it in his book, *A Theatre for Everybody*, the history of the Old Vic and Sadler's Wells. A primitive *Don Giovanni* had had something of a popular success in 1914. Miss Bayliss was persuaded to put on first *Figaro* and then *The Magic Flute*, produced by Clive Carey and in Dent's translations, with Muriel Gough as Susanna and Steuart Wilson as

Tamino; the other singers were mainly newcomers and so not tied to old traditions. Once more Mozart in English proved a decisive popular success, not merely a pretty-pretty rococo affair in a foreign language; and from that moment *Figaro* and *The Magic Flute* became indispensable features in every season's repertory.

People from the gallery waylaid the singers outside the stage-door demanding *Don Giovanni* and *Così fan tutte*. That summer Clive Carey went out to France to help Jean de Reszke with his singing classes. Dent went with him to make a new translation of *Don Giovanni*. Clive Carey sang the words through as they were being written, to make sure they were singable, and in the evenings they went round to Jean's hotel to talk about the opera and hear him hum whole scenes by heart. It is only since long-playing records came into existence that Dent's words have been thought 'unsingable' or 'unsuitable', because they were audible and, at deliberately comic moments, made the audience laugh.

This production of *Don Giovanni* at the Vic presented various points of novelty. In the first place Dent had made up his mind that it was to be presented as a comic opera, and not as a romantic tragedy. Its structure, he said, was quite definitely that of a comic opera; after all, he had worked at the history of comic opera, and his critics had not. He restored the comic finale, and dressed the opera in late eighteenth century Spanish costume in the style of Goya. These performances brought about a certain re-education of London opera audiences. 'In the old days every separate number would have been applauded and the opera interrupted while the singer came forward to bow her acknowledgments. But from now onwards operas were carefully produced in a way that prevented the audience from applauding; song merged almost imperceptibly into dialogue and the audiences began to take a new pleasure in the swift continuity of the action.' The pioneer work of new opera-production in conjunction with the ideas of Dent's new English translations was carried on at Sadler's Wells, reopened in 1931 as the home of opera in English.

Just before the production of *The Magic Flute* a remarkable performance of the same opera was given by the boys of an elementary school in the Isle of Dogs, under the direction of a most enterprising schoolmaster and pioneer in education, C. T. Smith, who had read Dent's book, *Mozart's Operas*, and made an arrangement of his own for boys' voices. The educational and ethical aspects made it singularly suitable, in his opinion, for a School performance; in some ways it was the most memorable of all the performances of *The Magic Flute*.

It was by these aspects of opera in English, and his work for it, that Dent would most like to be remembered. Sadler's Wells was above all else the thing nearest his heart.

6.

Dent had been writing musical criticism for the brilliant but moribund *Athenaeum* edited by Middleton Murry, with Katherine Mansfield, Lytton Strachey, Roger Fry, Virginia Woolf . . . a cast of writers, in fact, as brilliant in their way as the Diaghileff Ballet. *The Athenaeum* was absorbed into *The Nation;* Murry suggested, in the autumn of 1920, that Dent should go to Germany to try to pick up the threads of broken friendships and restore artistic relations. It was this, more than anything else, which

led to the foundation of the International Society for Contemporary Music; and Dent, greatly to his surprise, found himself voted into the chair by a meeting of delegates from different countries lately at war. He certainly had the qualifications. Though his experience of public speaking so far had been confined to a short address from the stage of the Old Vic—it was on Mozart and patronage—he found himself able to put the international point of view in French, German and Italian and if needs be, in Hungarian. His French was correct but stiff—something after the manner of Montesquieu, a French friend told him. His German was Hanoverian, immensely fluent, and he could throw German hearers off the scent by suddenly and deliberately introducing a South German or Austrian expression never found north of the Main. German suited his sense of humour, but he loved Italian. During the unveiling of a plaque to Busoni at Zürich, he began with a few words (but not many) in English, went on in German, but suddenly '*Parlar di Busoni . . .*' Any other language than Italian would have been impossible.

The people who made difficulties over the aims and methods of the International Society were not as a rule composers, but journalists. The composers were mainly interested in getting their music performed before an international audience; but the critics took a line that was narrowly nationalistic. The composers chosen and the works selected should, they considered, 'represent' their countries and not the various new directions of contemporary music. They objected to the ultimate selection being in the hands of an international jury, and thought that works 'representing' each country should be accepted without question from a national selection committee at home. In the early years of the Society the most loyal national section was undoubtedly the German. Perhaps they understood Dent better than the others: they had had more personal contact with him and appreciated his international idealism, while they were able to keep their more chauvinist members quiet in the cause of music. But in all countries, the journalists attacked the Society's ideals. The English critics, instead of supporting the English president of the Society because he was typically English, were always protesting in the name of English music. They particularly puzzled Dent by their outcry at something he had said about Elgar. Writing in a German historical publication on the renaissance of music in England, Dent correctly implied that Elgar had been less influential than Parry or Stanford. He referred to it again on his 81st birthday: 'Really, the critics seem at last to be coming round to my point of view.' He always remembered with a chuckle Stanford's fury at being suddenly called in to conduct *Gerontius*, having to buy a full score out of his own pocket and learn it up in the train: 'It makes me feel the metal in me mouth and the ether up me nose'.

On his election to the Cambridge Professorship (1927), Dent insisted on taking each composition-pupil separately. The work, and the worry of the International Society, brought on a duodenal ulcer, which caused excruciating pain from 1936 to 1941 or 1942 when he underwent a major operation. The pain was practically cured; but after a few years the haemorrhages began to recur, and the *Six Motets for unaccompanied Chorus*, begun as counterpoint exercises to take his mind off the ulcer, ended in deeply felt settings of psalms and poems by Wesley and Blake. There is a bound copy with the grim, printed label: 'Duodenal haemorrhage'.

The 'I am weary of my groaning' of the first motet may have been true in the early 1940's, but it is not true to say that his death was a merciful release. He gradually accustomed himself to growing old, to increasing feebleness, and the loneliness which came with increasing deafness. Even as an undergraduate he had had trouble with his ears. Then came the day when he suddenly asked at Sadler's Wells, as we stood up for the National Anthem: 'Why are they playing the King in B flat?' They were playing it in G, as usual; one ear had become a minor 3rd sharp. Eventually his deafness became total. He still went and watched performances of opera and ballet, remembering what was being sung or played from what he saw happening on the stage. He even, as a matter of duty, attended committee meetings, without hearing a word that was said or realizing that important decisions were often taken in his presence, though practically behind his back. But his British Academy Lecture in 1953 was a triumph: all the learning of a lifetime—and much of the old malice—devoted to a 'master mind' in music: Mozart.

WORDLESS FUNCTIONAL ANALYSIS No. 1

The term 'functional analysis' (FA) covers a growing theory and a fairly full-grown practice. Both are 'about' the unifying functions of music, inasmuch as these are not self-evident. In effect, therefore, functional analysis is concerned with the *unity of contrasts*.

The theory of unity on which I am working will be expounded in my book on criticism. In the present context, I am only concerned with my practice which, ideally, dispenses with all extra-musical means of communication: it is wordless.

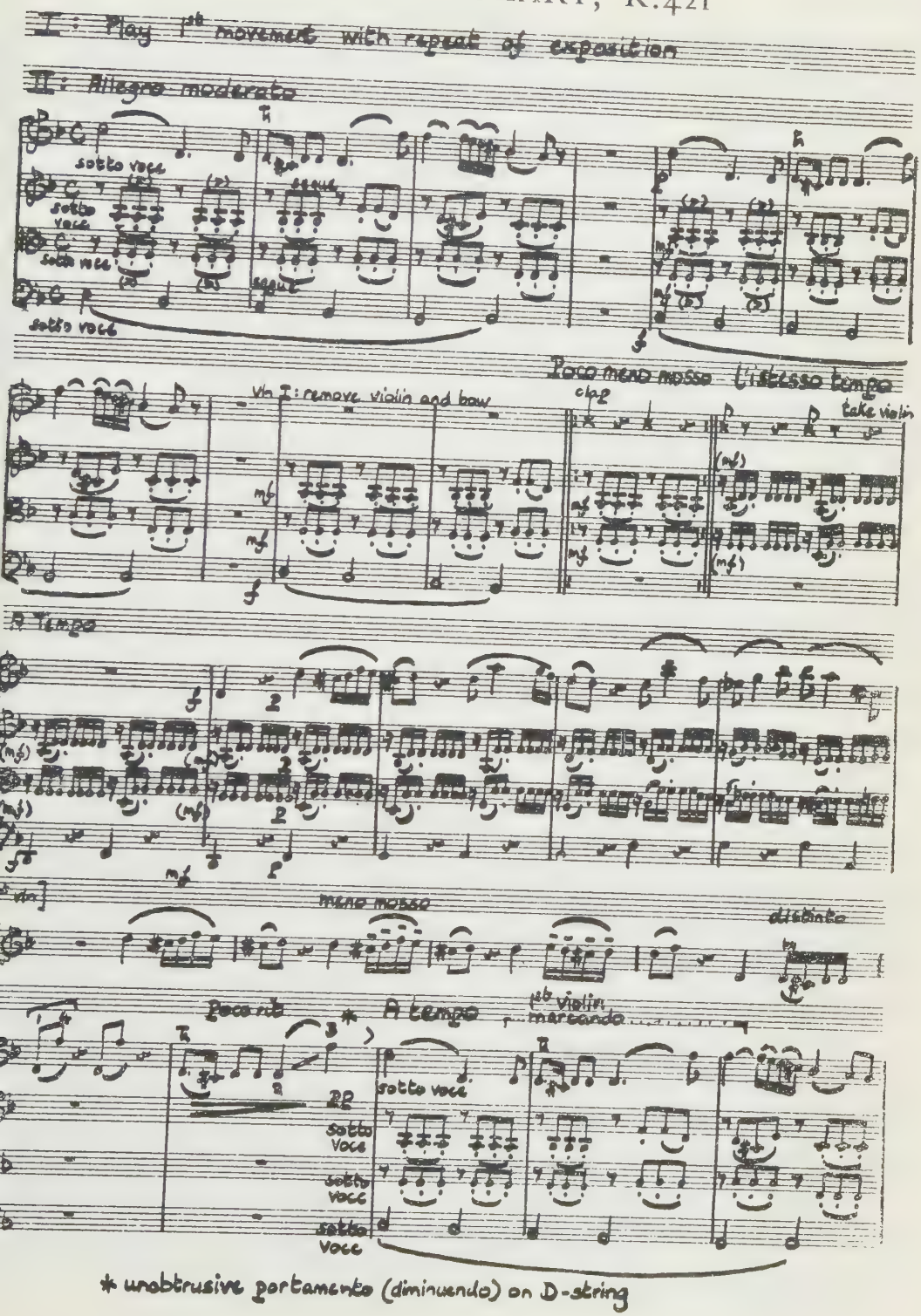
My first analytic score, reproduced in the following pages, was commissioned by the B.B.C. and broadcast last September under the title *The Unity of Contrasting Themes*. The analytic technique employed in this score is as primitive as possible. Encouraged by the success of the experiment, however, I have meanwhile developed the wordless method, and FA No. 2 (on Beethoven's Op. 95), again a B.B.C. commission which will be broadcast in the Third Programme on March 2, will be heard to be more complex.

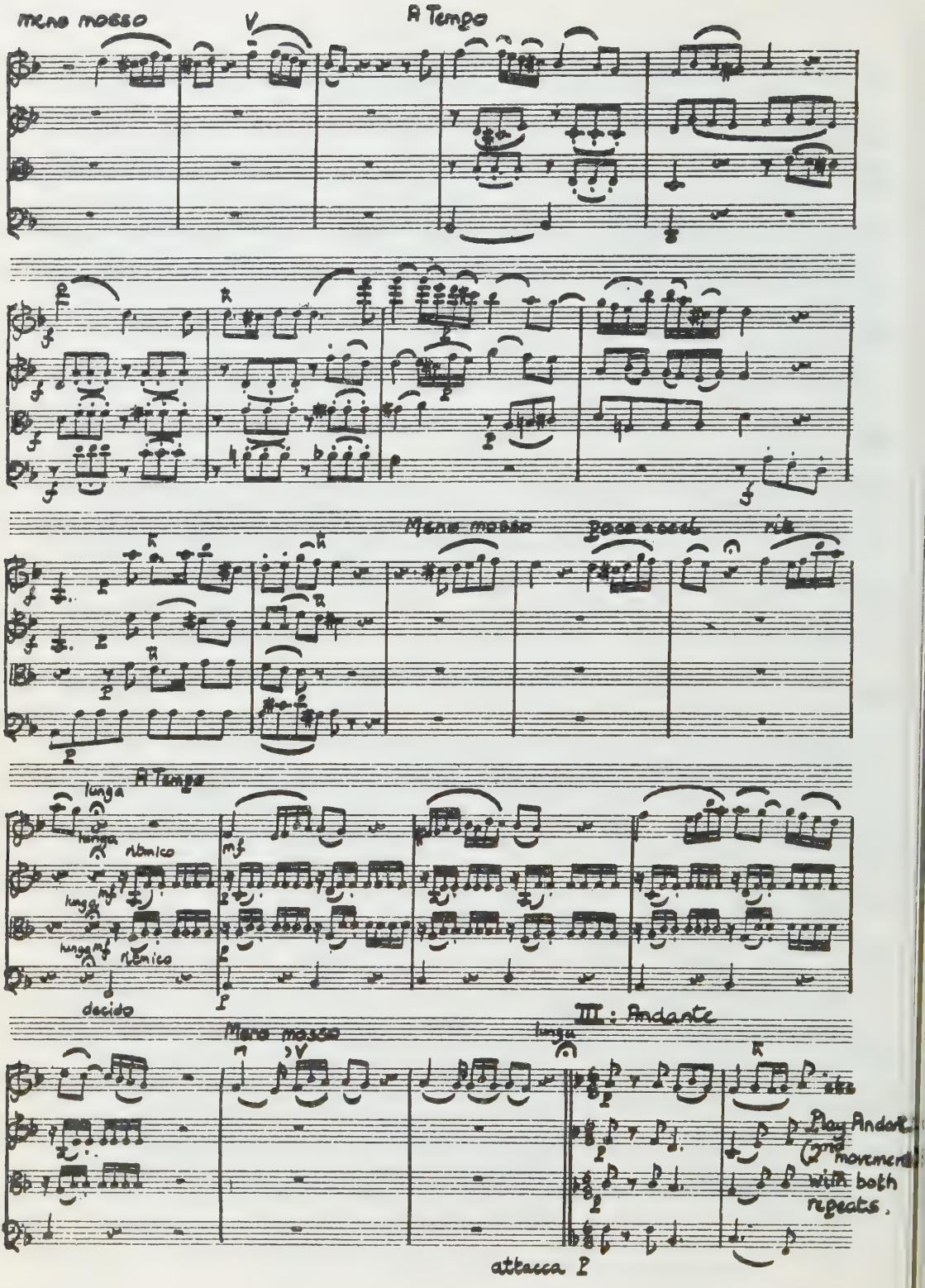
FA No. 1 is here printed as it was played: in fairness to the interested reader, he should be offered an opportunity to see what he (or others) heard. It is not, however, the final version. For one thing, I shall, before any final publication, insert an 'ossia' for the transition to the slow movement, because at that stage, the analysis proved too compressed for some ears (while others were impressed by the very compression). For another, the length of the score as it stands was determined by practical considerations, and the full version I have had in mind from the outset contains two further analytic developments.

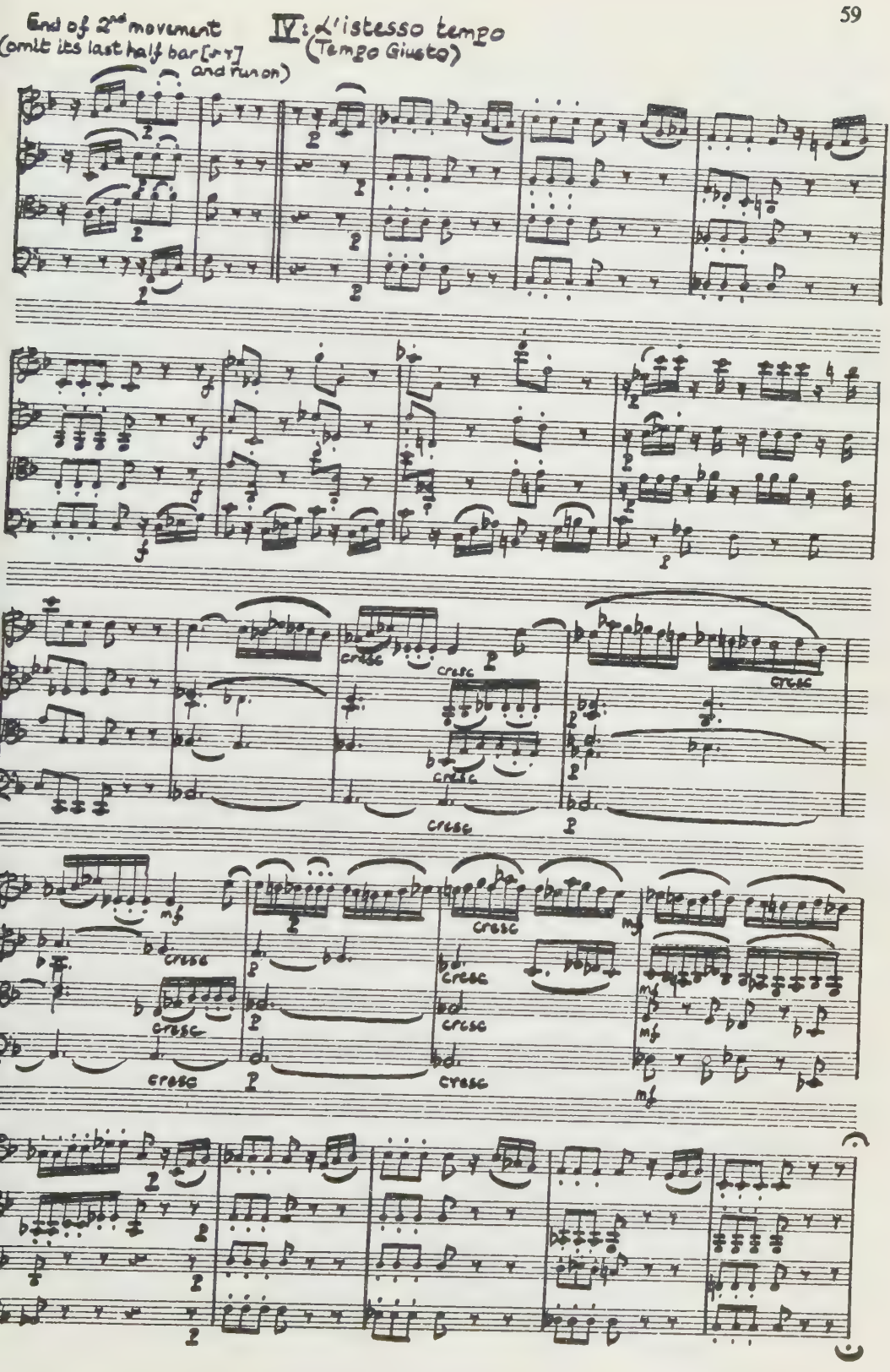
Concentrating on the most important elements of background unity, then, FA No. 1 is designed to show how the contrasting themes and movements of Mozart's String Quartet in D minor, K.421, hang together. It will be seen that the score is so constructed that its continuity is interrupted at one point in the middle, in order to make room for an interval for the recreation of the listener.

Hans Keller.

FA No. 1: MOZART, K.421

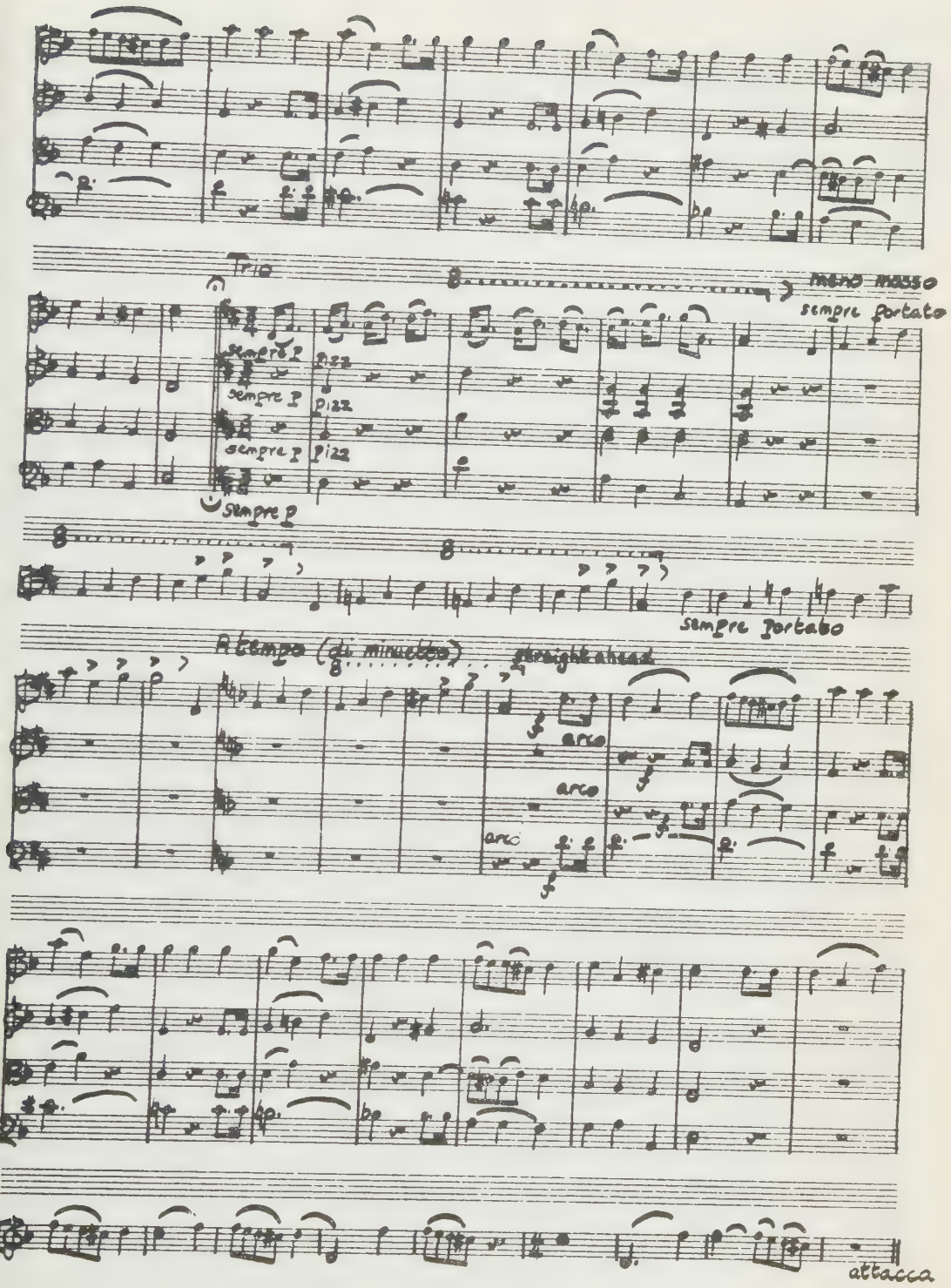


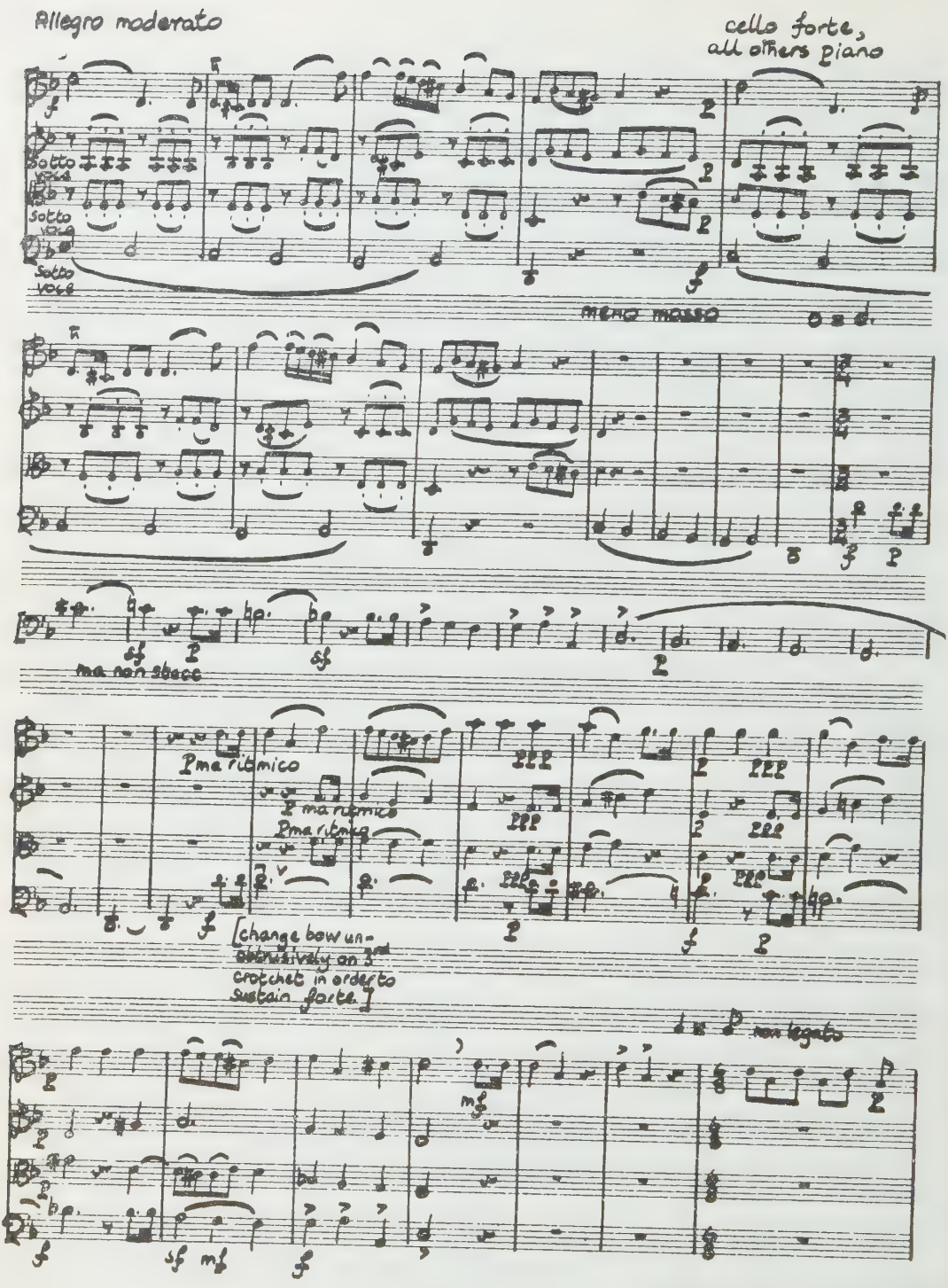

meno mosso
V
A Tempo
Meno mosso
poco accel.
rit.
A Tempo
lunga
ritmico
mf
decido
III : Andante
Meno mosso
lunga
Play Andante (2nd movement) with both repeats.
attacca I

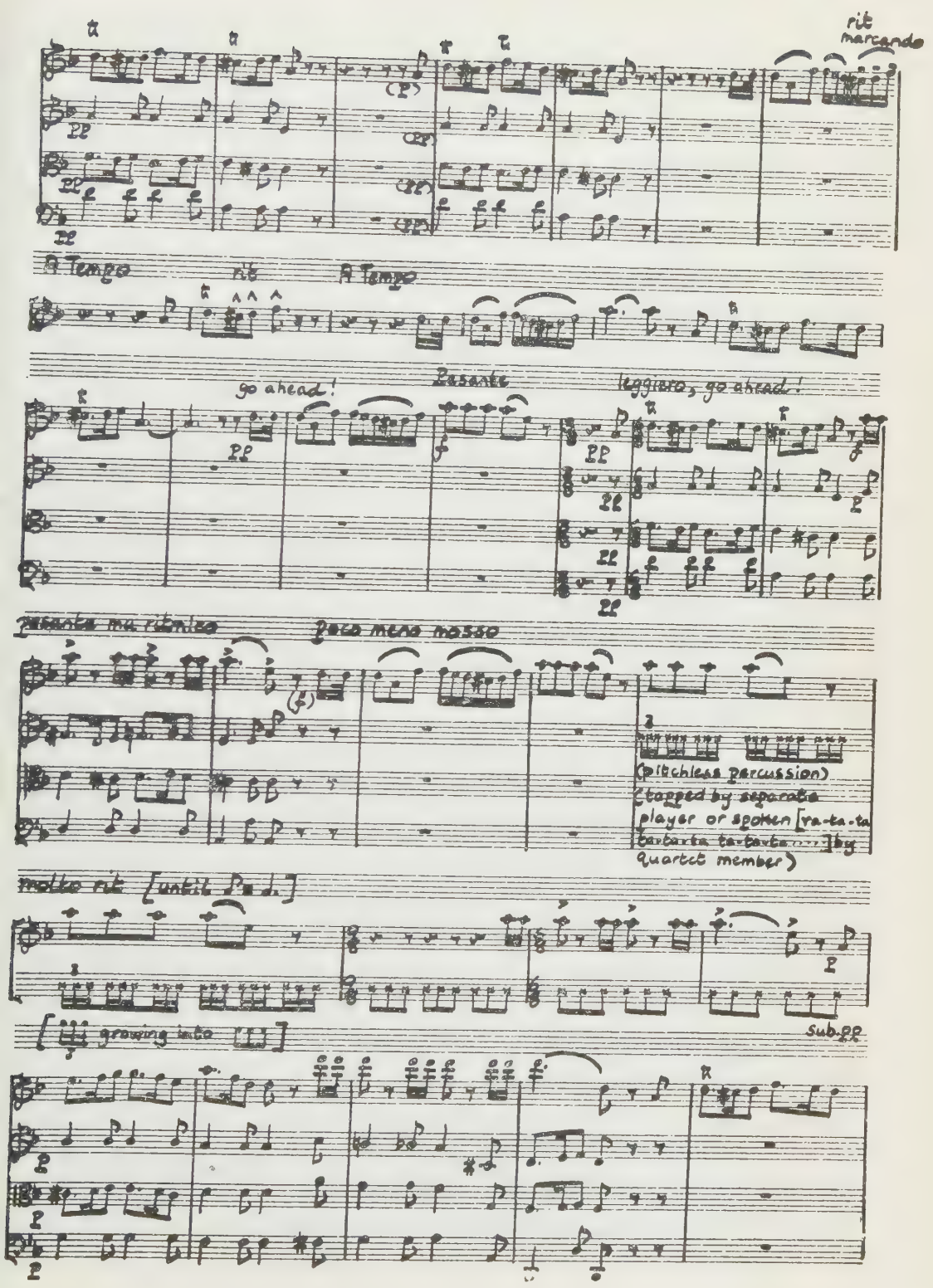

End of 2nd movement
(omit its last half bar [𝄽] and run on)
IV: L'istesso tempo
(Tempo Giusto)
cresc
mf

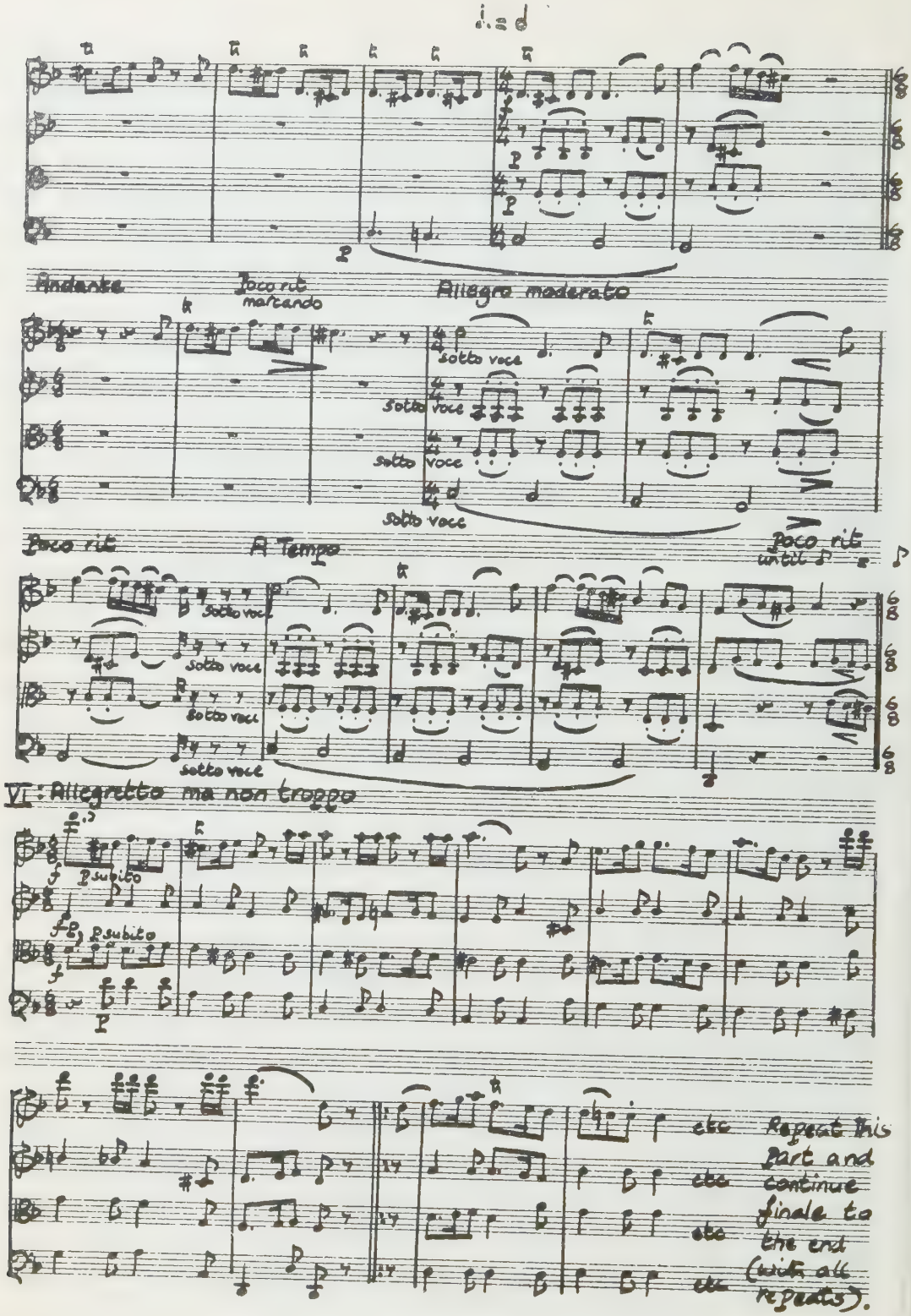
L'istesso tempo
ma marcando

Tempo di minuetto
♩. = ♩. marcando


Trio
meno mosso
sempre portato
sempre p
pizz
sempre p
pizz
sempre p
pizz
sempre p
sempre portato
A tempo (di minuetto)
straightahead
arco
arco
arco
attacca


Allegro moderato
cello forte,
all others piano
Sotto voce
Sotto voce
Sotto voce
meno mosso
ma non staccato
P ma ritmico
P ma ritmico
P ma ritmico
[change bow unobtrusively on 3rd crotchet in order to sustain forte.]
P non legato


rit
marcando
A Tempo
A Tempo
go ahead!
Pesante
leggiero, go ahead!
poco meno mosso
(pitchless percussion)
(tapped by separate
player or spoken [ra-ta-ta
tartarta tartarta ...] by
quartet member)
molto rit [until P. 4.]
growing into
sub.pp



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NEWS AND COMMENTS

ITALY

Peter Maxwell Davies sends the following note on music in Italy this winter:

'Musical life in Italy continues to be hampered to some extent by ever-increasing costs, bureaucracy and a certain public indifference to anything unfamiliar. It is heartening, however, to learn that a new series of eight *Incontri Musicali* concerts is planned for May, to take place in Venice or Rome, in collaboration with Radiotelevisione Italiana. As yet the final programmes are not available, but they will centre as before round the works of advanced contemporary composers. Also, the second number of the magazine *Incontri Musicali* (published by Zerboni, Milan) is due out now—the first number has already established this as a valuable forum for contemporary musical thought.

One looks far before finding a concert containing any music by important young Italian composers (some of whom seem to fare better in Germany!)—but at a recent concert in the series of the Accademia Filarmonica of Rome entitled *Modern Composers and Jazz* we heard a new work written jointly by Maderna and Berio. This had three sections, *Dark Rapture Crawl* (Maderna), *Scat Rag* and *Rumba Ramble* (Berio), which made a unified impression, and for all the intellectual treatment, the effect, in keeping with the titles, was fresh and extrovert. The audience reaction was interesting—many young people had obviously bought tickets under false pretences, expecting a real jazz session. At first they were rather amazed, then most of them began to enjoy the music. Perhaps promoters of contemporary music concerts could attract these people to their mutual advantage, which the organizers of the series at the Teatri del Popolo, Milan, probably had in mind when they included a concert of electronic music in the prospectus of their present season, which includes jazz, neapolitan canzonets and an evening of mime to music by Satie! Other concerts with contemporary music are sometimes arranged by the information services of the various embassies. The German Embassy in Rome has already provided this winter an excellent concert with two of the Boulez *Structures* for two pianos, and Zimmermann's *Music for an Imaginary Ballet.*

The Filarmonica of Rome, as well as giving works by Webern, Schoenberg, Petrassi, Dallapiccola, Henze, and stage works by Peragallo (*La Gita in Campagna*) and Weill (*Lindberghflug*) provides the city with almost the only *old* music to be heard—this winter the *Notre Dame* Mass of Machaut, and works by Croce, G. Gabrieli, Schütz and Hassler. The Machaut will be performed by the choir of the Accademia Filarmonica, which, together with Rome University (amateur) Choir, is the only group to perform pre-Palestrina polyphonic music regularly—for it must be admitted that the Rome Church ignores almost completely its musical heritage. Even in the main churches sung mass is rare, and the performance of polyphony extremely rare. Furthermore, the organ generally intrudes with unsuitable music, and accompanies tastelessly the usually careless rendering of plainchant. Certain musical academies and universities are awakening to the fact that Italy has a vast wealth of forgotten mediaeval and renaissance music unnoticed in monastery and church libraries; courses on musical paleography, etc., are being organized, and scholarly editions are appearing.

One aspect of musical life in Italy in a vigorously healthy condition is the folk music. This one hears everywhere outside the big towns, and it is of unending interest. Forty kilometers from Rome itself, one can visit the appropriate library, press a button, and hear for oneself, without moving a step, folk music of any region, which says something for Italy's awakening consciousness of her own musical wealth, apart from opera, violin schools, and, a long way behind, Palestrina.'

FRANCE

The 32nd I.S.C.M. Festival will be held in Strasbourg, from June 9 to 15. Works chosen by the International Jury for performance at the festival are as follows:

Chamber works: H. E. Apostel (Austria) String Quartet No. 2, Herbert Brun (Israel) String Quartet No. 2, Valentino Bucchi (Italy) String Quartet, Aaron Copland (U.S.A.) Piano Fantasy, Peter Maxwell Davies (England) Alma redemptoris mater, John Exton (England) Dialogues for 2 violins, Artur Malawski (Poland) Piano Trio, Yori-Aki Matsudaira (Japan) Variations for piano trio, Karlheinz Stockhausen (Germany) Zeitmasse, Flemming Weis (Denmark) Fantasia seria for string quartet.

Works for chamber orchestra: Klaus Huber (Switzerland) Oratio Mechtildis, Milko Kelemen (Yugoslavia) Igre for baritone and chamber orchestra, Makoto Moroi (Japan) Développements raréfiants for voice and chamber orchestra, P. Schat (Holland) Septet, Ralph Shapey (U.S.A.) Concerto for clarinet and chamber orchestra.

Full orchestra: Niccolò Castiglioni (Italy) Ouverture in tre tempi, Michel Ciry (France) Piano Concerto, Egil Hovland (Norway) Concertino for 3 trumpets and strings, Ingvar Lidholm (Sweden) Ritornell, Jean-Louis Martinet (France) Sept poèmes (René Char) for vocal quartet and orchestra, Einojuhani Rautavaara (Finland) Prevariata, Milos Sokola (Czechoslovakia) Variations on a theme by V. Kapràlovà, Bernd Alois Zimmermann (Germany) Symphony.

UNITED STATES

Roger Sessions's 3rd Symphony had its première in Boston two months ago, and a second highly successful performance in New York (again by the Boston Orchestra under Charles Munch). Sessions is now writing a string quintet.

Columbia are issuing a Boulez-Stockhausen record: *Le marteau sans maître* and *Zeitmasse*, with Robert Craft conducting.

Stravinsky is in the midst of writing his largest-scale work for many years: *Threni*, which will last 30-35 minutes. The orchestra consists of 3 flutes, 3 oboes, 3 clarinets, 3 bassoons, 3 trumpets, 3 trombones and full strings. There are parts for two solo tenors and two solo basses, and incidental solos in the chorus, which will have to be a large one of eighty voices or more. *Threni* will be given for the first time next September, in the Scuola di San Rocco in Venice. Plans are going forward for a London performance in December, when the composer will be here.

ISRAEL

A note by Frank Pelleg:

'The outstanding event of the season was the opening of the new auditorium of the Israel Philharmonic Orchestra in Tel-Aviv. The air-conditioned Hall with nearly 3,000 seats will make it possible to hold concerts practically all the year round. The orchestra will no longer have to give as many as eleven repeats of each programme and can offer its 18,000 subscribers fourteen concerts a year in place of the customary ten, with sufficient space left for special concerts. To mark this significant achievement, a gala opening took place on October 6th. Leonard Bernstein conducted, and Arthur Rubenstein, Isaac Stern and Paul Tortelier were the soloists. Our fears of being presented with Beethoven's Triple Concerto were surpassed by the monstrosity of a programme in which, after speeches and anthems, each soloist in turn played a hackneyed concerto, to which was added a Festival Overture specially written for the occasion, and the inevitable *Consecration of the House*. Unfortunately, the programmes of the following three months did not show any remarkable improvement. Since the orchestra has no permanent artistic management it is difficult to pursue a proper programme policy, and the choice of repertoire depends largely on the taste and inclination of the visiting artists. It is expected that at least Dimitri Mitropoulos, who is to conduct the orchestra during the last two months of this season, will offer the Israeli audiences something off the beaten track.

For obvious reasons, the broadcasting service can afford to be much more enterprising. The *Kol-Israel* (Radio-) Orchestra presents at least one contemporary composition in each of the weekly public concerts in Jerusalem. Two regular series of recorded broadcasts are devoted to contemporary and to Israeli music respectively. That both Stravinsky's and Kodaly's 75th birthdays were properly observed, goes without saying. But if our audiences have got not only acquainted, but even familiar, with works by Varèse, Skalkottas, Gerhard and the like, if they are fairly up to date with *Musique concrète* and electronic research, it is definitely due to the efforts of those responsible for the Israel radio programmes. The cultural department of the Israel Army also deserves high praise. The poor conditions under which they run their broadcasting station, *Galey Tsahal*, do not prevent them from keeping musical entertainment and edification on the highest possible level. The Army's orchestra is by no means a mere military band, but a full-scale symphonic body, well trained, and directed in a truly pioneering spirit. Their performance of Schoenberg's *Chamber Symphony* in one of the concerts of the *Israel Contemporary Music Centre* was worth hearing.

An exciting surprise was the new *Viola Concerto* by Oedoen Partos, played a few weeks ago by the composer, with an orchestra of members of communal settlements from all over the country. Partos, who is at present director of the Israel Academy of Music, seems to have reached in this vigorous composition an ideal synthesis between Eastern material and Western technique. The performance of the whole programme—which included no less a work than the *Eroica*—was of a standard certainly not to be expected from a non-professional orchestra meeting three times a year for an intensive rehearsal period of several days (and nights).

In view of the music-minded population and the multitude of talents, our main problem lies in the training of professional instructors and teachers. The occasional seminaries held in the past by Max Rostal, Lazare-Lévy, Aaron Copland and others, were only sporadic and all too limited in time. This year, however, a Musical Workshop was started in Zikhron-Yaacov, a musician's recreation centre beautifully situated in the Carmel Hills. It dealt with chamber music, and the teaching staff included, apart from some eminent local musicians, Rudolf Kolisch and Maurice Gendron. For next summer, an additional acquisition will be Eduard Steuermann and it is hoped that this summer school will become an annual institution. Meanwhile, the planning of the tenth-anniversary celebrations of the State of Israel is in full swing. A whole year, starting in April 1958, will be dedicated to large-scale festivals, assemblies and exhibitions. The predominance of music will be felt not only in hundreds of local festivities already under preparation in towns, villages and settlements, but also in quite a number of international events of which a world festival of Jewish choirs will be the beginning.'

GREAT BRITAIN

Plans for the Summer School of Music at Dartington Hall are now fairly complete. The principal classes will be those of Aaron Copland (composition), Peter Gellhorn and Norman Del Mar (conducting), Manoug Parikian (violin), and Vlado Perlemuter (interpretation of the piano works of Chopin and Ravel). A contingent of the Morley College Orchestra will be in residence, to take part in concerts and also to be available for the conducting course. The concerts, given every evening from August 2 to 29, will include the following: Bach: many instrumental works and Cantata 21; Beethoven: Quartet op. 74, Septet, Sonata op. 81A, String Trio op. 8 no. 1, Prometheus Ballet Music; Britten: new guitar piece, Six settings of Chinese texts, for tenor and guitar, folksong settings, St. Nicholas; Bull: Walsingham Variations; Busoni: String Quartet; Elliott Carter: Elegy; Cherubini: Quartet in C; Chopin: Preludes, Sonata in B minor, the complete Etudes; Copland: Sextet and Piano Fantasy; Dowland: Fantasias, Lachrymae and many songs with lute; Richard Hall: Musica Concertante for strings, piano and percussion; Handel: Cantata for tenor and guitar, performance of the Fireworks Music, with fireworks, to celebrate the 10th anniversary of the Summer School; Haydn: Quartets opp. 76 no. 1 and 76 no. 2, 'Nelson' Mass, Symphony No. 83; Henze: new guitar piece; Hindemith: Harp Sonata; Krenek: Violin Sonata; Milhaud: La Création du Monde; Mozart: Divertimento K.563, Quartet K.465, Clarinet Quintet, Horn Quintet, Wind Serenade in C minor, Sonata for 2 pianos, Violin Concerto in A; Schubert: Lieder, Mass in G, Quartet op. 161, Octet; Schoenberg: Fantasy for violin and piano op. 47; Stravinsky: Octet and Danses Concertantes; Webern: Orchestral Variations, op. 30. There will also be four concerts, two given by the Ambrosian Singers under Denis Stevens, and two by the Pro Musica Antiqua of Brussels under Safford Cape, whose programmes will include works by Byrd, Caccini, Dufay, Dunstable, Isaac, Jannequin, Lassus, Machaut, Morley, Monteverdi, Okeghem, Pérotin, Claudin de Sermisy, Tomkins, Weelkes and Wilbye.

The Aldeburgh Festival programme this year will include stage performances of Monteverdi's Il ballo delle ingrate, Poulenc's Les mamelles de Tiresias, and a new musical Mystery Play—Noye's Fludde—by Britten. Other events will be a series of five late evening Magnificats, with works by Dunstable, Josquin, Obrecht, Vittoria, Monteverdi, Schütz and Buxtehude; and a performance of Handel's Joshua. Peter Pears and Julian Bream will give the première of another new work by Britten, the settings of Chinese texts mentioned in the previous paragraph. Yehudi Menuhin will take part, as last year; also Yvonne Lefébure, Charles Cleall, Raymond Leppard and Charles Mackerras. The festival will run from June 13 to 22.

CONTRIBUTORS TO THIS ISSUE

JOSEF RUFER: Born in Vienna, 1893. Studied with Arnold Schoenberg from 1919 to 1922. Went with him to Berlin as his assistant at the Academy of the Arts in 1925. An intimate friend of Schoenberg's for over thirty years. Since 1950 has taught musical theory at Berlin University and, since 1956, twelve-note composition at the *Hochschule für Musik*, Berlin. Has written an outstanding book, *Die Komposition mit Zwölf Tönen*, which has been translated into English (by Humphrey Searle) and Japanese.

PETER STADLEN: Born 1910 in Vienna. Lives in London. Until recently concert pianist. Appeared at Festivals of Darmstadt, Edinburgh, Frankfurt, Holland, Venice, Vienna. Has given many first performances of twelve-note compositions. Received Schoenberg medal in 1952 from Austrian Ministry of Culture in conjunction with Austrian Section of I.S.C.M. In recent years has broadcast many talks and undertaken musicological research. Is engaged in writing a study of the implications of sketches and corrections in the Viennese classics.

NORMAN DEL MAR: Born 1919 in London. Educated at Marlborough and the R.C.M. where he studied under Vaughan Williams and Constant Lambert. Directly after the war was a horn player in the Philharmonic Orchestra and in the R.P.O. In 1946 founded and conducted a student orchestra which gave interesting programmes at the Chelsea Town Hall. Sir Thomas Beecham invited him to conduct the R.P.O. at the Strauss Festival of 1947, and Del Mar remained in association with Sir Thomas for some years, during which he also became principal conductor of the English Opera Group. Is Professor of conducting at the Guildhall School of Music.

MARC WILKINSON: Born 1929 in Paris. Studied composition with Varèse, as well as with Messiaen, Otto Luening and Roger Sessions; also at Columbia University, where for a time he was a lecturer in music. As his article in this issue makes clear, has recently worked for two months at the *Studio di Fonologia* in Milan.

J. B. TREND: Holds the position at Cambridge of Emeritus Professor of Spanish. He was the first in this country to call attention to Lorca the poet and Falla the composer, both of whom he knew intimately; his research included Morales and Victoria, the chief composers of the Spanish 16th century, and the little-known Spanish 'madrigalists'. A friend of Professor Dent's since 1908, he attended most of the International Festivals of Contemporary Music (as well as of ancient music) and made himself useful by talking to the various international visitors in their own languages.

HANS KELLER: Writings and research fall mainly into four classes; analysis, criticism, criticism of criticism, and psychology, chiefly of musical composition. Is at present preparing a book entitled *Criticism: A Musician's Manifesto* (André Deutsch), and developing his 'Functional Analysis' (see page 56 of this issue).

It appears that some arrows were gratuitously added to the music example on page 41 of the last issue in the article by Hans Keller on Schoenberg's *Moses and Aron*. The copyist is innocent, and the matter remains a mystery; meanwhile we offer apologies to Mr. Keller.

The quotations in the present issue from Webern's *Piano Variations* are made by permission of Universal Edition—Alfred A. Kalmus, Ltd., London, also the quotation from Schoenberg's *Chamber Symphony*, Op. 9.